

TestAmerica St. Louis 13715 Rider Trail North Earth City, MO 63045 Tel: (314)298-8566

TestAmerica Job ID: 160-1307-1

TestAmerica Sample Delivery Group: SL1352

Client Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

For:

CH2M Hill Plateau Remediation Company PO BOX 1600, MS H8-41 Richland, Washington 99352

Attn: General Mailbox

Jayna Awalt

Authorized for release by: 2/19/2013 1:38:23 PM

Jayna Awalt
Project Manager I
jayna.awalt@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: CH2M Hill Plateau Remediation Company Project/Site: S,W,I,A,X SAFS- GROUNDWATER TestAmerica Job ID: 160-1307-1

SDG: SL1352

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Client: CH2M Hill Plateau Remediation Company Project/Site: S,W,I,A,X SAFS- GROUNDWATER TestAmerica Job ID: 160-1307-1

SDG: SL1352

Job ID: 160-1307-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

CH2MHill Plateau Remediation Company

P.O. Box 1600 MS B3-60

Richland, Washington 99352

February 19, 2013

Attention: Scot Fitzgerald

SDG : SL1352

Number of Samples : 18 samples Sample Matrix : Water Data Deliverable : Summary Date SDG Closed : January 25, 2013

II. Introduction

Between January 22, 2013 and January 25, 2013, 18 water samples were received by TestAmerica - St. Louis for chemical analysis. The samples were received within temperature criteria. See the COC and CUR forms for documentation of any variations on receipt conditions and temperature. Upon receipt, the samples were given laboratory Ids to correspond with specific client Ids. Please refer to the Sample Summary sheets attached to this case narrative. This report is incomplete without the narrative.

The following SAFs are associated with this SDG: W13-001, I13-012, S13-001, I13-003

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits. All results are based upon samples as they were received, i.e. wet weight, unless otherwise noted on the data sheets. See the attached Methods Summary Form for the methods used in this SDG.

MS/MSD/Dup analysis was done per the client requirements. Analytical batches that did not contain matrix QC were analyzed with a LCS/LCS duplicate.

Deviation from Request: None

IV. Definitions

QCBLK- Quality Control Blank, Method Blank

QCLCS- Quality Control Laboratory Control Sample, Blank Spike

DUP- Laboratory Duplicate

MS- Matrix Spike

MSD- Matrix Spike Duplicate

The term "Detection Limit" used in the analytical data report refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

The following data qualifiers may be applicable to the results in this report, as appropriate.

- **B** For inorganic analyses, the sample result is greater than the MDL but less than the RL.
- B For organic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the

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Client: CH2M Hill Plateau Remediation Company Project/Site: S,W,I,A,X SAFS- GROUNDWATER

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Job ID: 160-1307-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

- **J** For organic analyses, the sample is estimated and less than the RL.
- C For inorganic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **D** For all analyses, the sample result was obtained from the analysis of a dilution.
- N For inorganics and GC analyses, the spike/spike duplicate recoveries are outside QC limits.
- T For GCMS analyses, the spike/spike duplicate recoveries are outside QC limits.
- **O** For all analyses, the LCS (LCSD) recoveries are outside QC limits.
- M- For inorganic analyses, the precision was outside control limits.
- P For organic analyses (PCB/Pests only), the aroclor target analyte has greater than 25% difference for detected concentrations between the two GC columns.

Anions

Batch: 30916

The following samples were diluted to bring the concentrations of Chloride and Sulfate within the calibration range in batch 30916: (160-1340-1 DU), (160-1340-1 MS), B2MP93 (160-1340-4), B2N781 (160-1340-2), B2N7M8 (160-1340-3), B2N7T0 (160-1340-1). Elevated reporting limits (RLs) are provided. These analytes have been qualified accordingly with a "D" flag in the associated samples.

The following samples were received outside of 48 hour holding time for Nitrite and Nitrate in batch 30916 [B2N7T0 (160-1340-1), B2N781 (160-1340-2), B2N7M8 (160-1340-3), B2MP93 (160-1340-4)]. Per client request and SDR13-096, the samples were to be analyzed within 2x hold. Upon receipt, samples were prepared for analysis and placed on the instrument within the 2x hold time. During analysis, an instrument computer malfunction destroyed the computer hard drive. A new hard drive was installed and data was recovered. However, due to shut down during analysis, the samples were at different points in the instrument run. Samples B2N7T0, B2N781 and B2MP93 were analyzed at 1x and 20x dilutions for Chloride, Nitrate and Sulfate. However, these samples needed additional dilutions that had not yet been performed due to instrument shutdown. Sample B2N7M8 had not been analyzed when shut down occurred. Per SDR13-096, Nitrate and Nitrite analysis was cancelled for these samples due to expired 2x hold.

Batch: 31887

The following samples were received outside of 48 hour holding time for Nitrite, Nitrate, and Ortho Phos in batch 31887. Per client request and SDR13-096, the samples were to be analyzed within 2x hold [B2N613 (160-1340-5), B2N614 (160-1340-6)]. Upon receipt, samples were prepared for analysis and placed on the instrument within the 2x hold time. During analysis, an instrument computer malfunction destroyed the computer hard drive. A new hard drive was installed and data was recovered. However, due to shut down during analysis, the samples were at different points in the instrument run. Sample B2N613 was analyzed and not affected. Sample B2N614 ran successfully for the initial run and subsequent 20x dilution runs for Chloride and Sulfate. During the 100x dilution run for Nitrate, instrument shut down affected the CCVs affecting the sample. Per SDR13-096, Nitrate analysis for sample B2N614 was cancelled.

The following sample was diluted to bring the concentrations of Chloride and Sulfate within the calibration range in batch 31887: B2N614 (160-1340-6). Elevated reporting limits (RLs) are provided. These analytes have been qualified accordingly with a "D" flag in the associated samples.

Sulfide

Batch: 29578

Sulfide was detected in method blank MB 160-29578/1 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "B". If the associated sample reported a result above the MDL and/or RL, the result has been "C" flagged.

TestAmerica St. Louis 2/19/2013



Client: CH2M Hill Plateau Remediation Company Project/Site: S,W,I,A,X SAFS- GROUNDWATER

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Job ID: 160-1307-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

There were no observations or nonconformances for the following methods:

Phenols

I certify that this Summary Package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the signature on the cover page has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

Jayna Awalt St. Louis Project Manager 3

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SAMPLE ISSUE RESOLUTION

SIR NUM SDR13-096

REV NUM

DATE INITIATED 1/28/2013

SAMPLE EVENT INFORMATION

SAF NUM(S) 113-012, 113-003, S13-001

OPERABLE UNIT(S) 100-KR-4, NONE
PROJECT(S) SURV13, CERC13
SAMPLE EVENT TITLE(S) SURV13, CERC13

LABORATORY Waste Sampling & Characterization

SAMPLING INFORMATION

NUMBER OF SAMPLES 5

SAMPLE NUMBERS B2MP93, B2N614, B2N781, B2N7M8, B2N7T0

SAMPLE MATRIX WATER
COLLECTION DATE 1/23/2013

SDG NUM SL1352

ISSUE BACKGROUND

CLASS Laboratory Issue

TYPE Analysis Holding Time Exceeded

DESCRIPTION The listed samples were diverted to TASL due to HVAC issues at WSCF. Upon receipt, samples were prepared

for analysis and were placed on the instrument within the 2x hold as requested by CHPRC.

During analysis, the instrument's computer malfunctioned and the hard drive was destroyed. A new hard drive

was installed and data were recovered.

However, due to the shut down during analysis, the samples were at different points in the run. Sample B2N614 ran successfully for initial run and subsequent 20x dilution runs. During 100x dilution run for nitrate,

instrument shut down affected the CCVs bracketing the sample.

Samples B2N7T0, B2N781, and B2MP93 were analyzed at 1x and 20x dilutions for chloride, nitrate, and sulfate. However, these samples need additional dilutions that have not yet been performed due to

instrument shut down.

Sample B2N7M8 was prepared and put on instrument but shut down occurred before it could be run.

All the listed samples still require analyses that would be performed outside 2x hold time.

DISPOSITION

DESCRIPTION PROPOSED DISPOSITION:

(1) Continue analyzing listed samples outside 2x hold time.

OR

(2) Cancel all nitrate and nitrite analyses for the listed samples and document in case narrative; complete any

remaining analyses for the other anions.

JUSTIFICATION ACCEPTED DISPOSITION: Accept proposed disposition (2)

Submitted by: Jayna Awalt / TASL Date: 1/28/2012 Accepted by: Karen Waters-Husted / CHPRC Date: 1/28/2013

A-6003-640 (03/30) PAGE 1 of 1

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CA 3 C.O.C.# ST W13-001-111 Page 1 of 1	20	e 300071ES20	5∞-°	7578171J24P		Total Activity Exemption: Yes 🗹 No 🗌	Preservative	Na2S2O3/Cool~4C	None	Matrix * Soil DS = Drun Solids Sediment DL = Drun Liquids Solid T = Tissue Solid T = Tissue Water L = Liquid Oil V = Vegetation Air X = Otter Date/Time
نىلى SIS REQUEST	Telephone No. 376-4650	Purchase Order/Charge Code	Ice Chest No. (7R.P. 03-005	Bill of Lading/Air Bill No. 79456	Offsite Property No.		Holding Time	7/40 Days	6 Months	Date/Time Date/Time SE SO SA SE SO SA SE SO SA SO SA SO SA SO SA SA SA
ύω CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	Karen Waters-Husted	Hanford Site	HNF-N-506 51 / 70	Commercial Carrier	30 JA 130 13	SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Information	Sample Analysis	PHENOLIC_GC: COMMON	an	Half Till Lett. 12.18 Part Date Date Date Date Date Date Date Date
CHAIN OF C	Contact/Requester	Sampling Origin	Logbook No. HI	Method of Shipment	Priority: 45 Days	isportation per 49 CRF but are not	No/Type Container	3x1-L aG 8041_PHE	1x20-mL P Activity Scan	Date/Time Received By Date/Time Received By HOO Received By HOO Received By Date/Time Received By HOO Received By
u Remediation SL1353	Aard	W13-001	RCRA, JANUARY 2013	TestAmerica St. Louis	RCRA	POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)	* Date Time	W 1-18-13 0910		Print Date/Time Roll
CH2MHill Plateau Remediation Company SL1353	Collector Roy Shepard	SAF No. WI	Project Title RC	Shipped To (Lab) Tes	Protocol RC	POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentations this releasable per DOE Order 5400 5 (1990/1993)	Sample No. Filter	B2N4T0 N	B2N4T0 N	Relinquished By Relinquished By Schrift Control of FINAL SAMPLE DISPOSITION RELINGUISHER BY Relinquished By FINAL SAMPLE Disposition

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Relinquished By	SCOTT KING	Relinquished By	- * 088	Relinquished By	一くのようらって	Relinquished By Col Ex	FINAL SAMPLE DISPOSITION	PRINTED 0 11/21/2012

Project Title	RCI	RA, JAN	RCRA, JANUARY 2013	9013	Logbook No.		HNF-N-506 36/58	Ice Chest No. (76	Ice Chest No. (7RP-03-005
Shipped To (Lab)		tAmerica	TestAmerica St. Louis	is	Method o	Method of Shipment Commercial Carrier	mmercial Carrier	Bill of Lading/Air l	Bill of Lading/Air Bill No. 794561778634
Protocol	RCRA	RA.			Priority:	45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentations tha releasable per DOE Order 5400 5 (1990/1993)	LE HA: ctive Ma der 5400	ZARDS/R terial at conc) 5 (1990/199	EMARKS (centations tha	it are not regulated	*** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)	RF but are not	SPECIAL INSTRUCTIONS Hold Time Site Wide Generator Knowledge Information Form applies.	Hold Time on Form applies.	Total Activity Exemption: Yes 🗹 No 📋
Sample No.	Filter	*	Date	Time	No/Type Container		Sample Analysis	Holding Time	1e Preservative
B2N489	z	× (CI ->	W 01-18-13 6715	6715	3x1-L aG	8041_PHENOLIC_GC: COMMON	GC: COMMON	7/40 Days	s Na2S2O3/Cool~4C
B2N489	z	> ≥	_	7	1x20-mL P	Activity Scan		6 Months	None

W13-001-096

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.#

Page 1 of 1

300071ES20

Purchase Order/Charge Code

376-4650

Telephone No.

Karen Waters-Husted

Contact/Requester Sampling Origin Logbook No.

SLISER

SCOTT KING W13-001

Collector SAF No.

CH2MHill Plateau Remediation

Company

Hanford Site

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A-6004-842 (REV 2)

JAN 1 8 7013 E40 Second by Date Time Date Time Chair Hon Chair Hon Date Time Received By Date Time Date	JAN 1 8 7013 Lime Matrix 3 Line Matrix 3 Line Solids S = Solid DS = Drum Solids	Date/Time SE = Sediment DL SO = Solid T	Date/Time Date/Time	Christian Date/Time	Disposed By Date/Time	A 6004 842 (DEX 2)
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			`				Page 1 of 1
Collector	SCOTT KING		Contact/Requester		Karen Waters-Husted	Telephone No. 37	376-4650
SAF No.	W13-001		Sampling Origin		Hanford Site	Purchase Order/Charge Code	e Code 300071ES20
Project Title	RCRA, JANUARY 2013	2013	Logbook]	No. HNF-N-50	HNF-N-506 $\Im (c/5)$	Ice Chest No. (PRP-03-005	- 03-005
Shipped To (Lab)	TestAmerica St. Louis	uis	Method o	Method of Shipment Commercial Carrier	ımercial Carrier	Bill of Lading/Air Bill	Bill of Lading/Air Bill No. 794561778634
Protocol	RCRA		Priority:	45 Days		Offsite Property No.	
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Sample No.	Filter * Date	Time	No/Type Container		Sample Analysis	Holding Time	Preservative
B2N490	N W 61-18-13	1155	3x1-L aG	8041_PHENOLIC_GC: COMMON	GC: COMMON	7/40 Days	Na2S2O3/Cool~4C
B2N490	A N	>	1x20-mL P	Activity Scan		6 Months	None

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Super Bowl XLVII is causing delays in the New Orleans, LA area. <u>Learn More</u>

Fed ...

Ship (P/U) da Mon 1/21/2	ate : 013 4:00 pm			Actual delivery : Tues 1/22/2013 9:03 am
RICHLAND, V	VA US	Signe	Delivered d for by: B.DANIELS	EARTH CITY, MO US
Travel H	istory			
Date/Time	Activity			Location
- 1/22/20	13 - Tuesd	ay		
9:03 am	Delivered			EARTH CITY, MO
6:35 am	On FedEx	vehicle for delivery		EARTH CITY, MO
6:29 am	At local Fe	dEx facility		EARTH CITY, MO
5:37 am	At destinat	ion sort facility		BERKELEY, MO
4:45 am	Departed F	edEx location		MEMPHIS, TN
12:17 am	Arrived at F	FedEx location		MEMPHIS, TN
- 1/21/20	13 - Monda	ау		
5:05 pm	Left FedEx	origin facility		PASCO, WA
4:00 pm	Picked up			PASCO, WA
11:29 am	Shipment i	nformation sent to FedEx		
				Local Scan Time
Shipmen	t Facts			
Tracking number		794561778634	Service	FedEx Priority Overnight
Weight		89 lbs	Delivered To	Shipping/Receiving
Total piece Shipper re		1 GRP-03-005	Total shipment weight	89 lbs / 40.4 kgs
Special ha		Deliver Weekday	Packaging	Your Packaging

Exaren Waters-Husted Telephone No. 376-4650 Hanford Site Hanford Site Hearford Site Free Cheart No. GRD-CN3-COS Commercial Carrier Soc At 1/22/13 Soc At 1/22/13 Commercial Carrier Bill of Lading Air Bill No. 79 495 6/1 Soc At 1/22/13 Somple Analysis Free CACN for all analytical work at WSCF is 401647. The CACN for all analytical work a	EXACTODY/SAMPLE ANALYSIS REQUEST Hanford Site Purchase Order/Charge Code 30007 Hanford Site Purchase Order/Charge Code 30007 Hanford Site Purchase Order/Charge Code 30007 Formercial Carrier Bill of LadingAir Bill No. ¬9945676 Soo A4 1/22/13 Offsite Property No. Starple Analysis Hold rime Frost Sample Analysis Process Commercial Carrier	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST Sampling Origin Hunford Site Parts Waters-Husted Sampling Origin Hunford Site Parts Waters-Husted Friority: 45-Bays 50 44 1/22/15 Friority: 45-Bays 50 4/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST Sampling Origin Hanford Sire Logbook No. HNF-N-506 26 / 52 Rethorty: 45 Pages 50 A4 1/22/13 Priority: 45 Pages 50 A4 1/22/13 Prior					1	1	1			EB
Karen Waters-Husted Telephone No. 37 Hanford Site Purchase Order/Char Purchase Order/Char Description	Karen Waters-Husted Telephone No. 37 Hanford Site Hantord Site Husted Telephone No. 37 Hanford Site Hantord Site Husted Telephone No. 37 Commercial Carrier Bill of Lading/Air Bill analyteal work at WSCF is 401647. FIDE: COMMON 7 Days an Holding Time 6 Months an Print Sign JAN 18 2013, 340 Date/Time Date/Time Date/Time Date/Time	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUES: Contact Requester Karch Waters-Husted Telephone No. 37	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUES ContactRequester Karen Waters-Husted Telephone No. 37 Samplined for tamporation per 49 CRF but no not regulated for	٠	Page 1 of 1	650		77-005	1		Preservative	ZnAc+NaOH to pH > 9/Cool~4C	None
OF CUSTODY/SAMPLE ANA juester Karen Waters-Husted jigin Hanford Site HNF-N-506 3/2 / 5/2 hipment Commercial Carrier 45-Bays 50 44 1/2 4/13 Semple Analysis Sample Analysis Sample Analysis O34 SULFIDE: COMMON ctivity Scan Ctivity S	CHAIN OF CUSTODY/SAMPLE ANA Contact/Requester Karen Waters-Husted Sampling Origin Hamford Site Logbook No. HNF-N-506 36 / 55 Method of Shipment Commercial Carrier Priority: 45-Bays 50 At 1/22/13 Priority: 45-Bays 50 At 1/22/13 Sample Analysis Sample Analysis Sample Analysis Sample Analysis Activity Scan Date/Time Received By CF. Hor (CAC) for all analyted work at WSC Date/Time Received By Date/Time	Time No/Type Container Acromatical for transportation per 49 CRF by The No/Type Container Acromatical for transportation for 49 CRF by The Date/Time Rece CALS Date/Time Rece	Time No/Type Container AZ0133 & Eece AZ0131 & Eece AZ01324/O Date/Time Rece CAU Table/Time Rece Date/Time Rece CAU Date/Time Rece Date/Time Rece CAU Date/Time Rece Date/Time Rece Date/Time Rece Date/Time Rece	CK 3 LYSIS REOTIEST			Purchase Order/Charge Co	PRP-	Bill of Lading/Air Bill No.	Offsite Property No.	Holding Time	7 Days	6 Months
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CH2MHill Plateau Remediation	ateau R	emediation			; ; ;			ļ	C.O.C.#	
Company		` .	ったい	CHAI	NOF CUS	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	ALYSIS REQUE	ST	010-710-611	
		200	311224 						Page 1 of 1	
Collector	SCOTT KING	ING		Contact/F	Contact/Requester Ka	Karen Waters-Husted	Telephone No. 37	376-4650		-
SAF No.	113-012	.2		Sampling	Origin	Hanford Site	Purchase Order/Charge Code		300071ES20	
Project Title	2ZP1,	2ZP1, JANUARY 2013	113	Logbook No.		HNF-N-506 <i>3to 55</i>	Ice Chest No. (7RQ-03-005	J- 03-0c	25	
Shipped To (Lab)		TestAmerica St. Louis	İS	Method o	Method of Shipment C	Commercial Carrier	Bill of Lading/Air Bill	1No. 794	Bill of Lading/Air Bill No. 79456177 8634	
Protocol	CERCLA	LA		Priority:	45 Days		Offsite Property No.			
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that	PLE HAZA active Materia	RDS/REMARKS	at are not regulated	OSSIBLE SAMPLE HAZARDS/REMARKS *** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not	RF but are not	SPECIAL INSTRUCTIONS Hold Time 200 Area Generator Knowledge Information Form applies.	Hold Time tion Form applies.	Total Activity E	Total Activity Exemption: Yes 🗹 No 🗌	
reicasante per DOE Order 3400 3 (1990/1993)	Juder 5400 5	(1990) (1995)				THE CACAN TOT ALL ANALYSIS WORK AT WOCK IS 4U1047.	Cr IS 401047.			
Sample No.	Filter *	Date	Time	No/Type Container		Sample Analysis	Holding Time		Preservative	
B2N5W9	N N	WO1-18-13 10947	C447	3x500-mL G/P	9034_SULFIDE: COMMON	: COMMON	7 Days	ZnAc+i	ZnAc+NaOH to pH > 9/Cool~4C	1
B2N5W9	∧ N	7	>	1x20-mL P	Activity Scan		6 Months		None	

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IMPORTANT!

Super Bowl XLVII is causing delays in the New Orleans, LA area. Learn More



794561778634

Ship (P/U) date:

Mon 1/21/2013 4:00 pm

RICHLAND, WA US



Actual delivery:
Tues 1/22/2013 9:03

EARTH CITY, MO US

DeliveredSigned for by: B.DANIELS

Travel History

Date/Time Activity Locat

- 1/22/2013 - Tuesday

9:03 am	Delivered	EARTH CITY, MO
6:35 am	On FedEx vehicle for delivery	EARTH CITY, MO
6:29 am	At local FedEx facility	EARTH CITY, MO
5:37 am	At destination sort facility	BERKELEY, MO
4:45 am	Departed FedEx location	MEMPHIS, TN

- 1/21/2013 - Monday

12:17 am

5:05 pm	Left FedEx origin facility	PASCO, WA
4:00 pm	Picked up	PASCO, WA

11:29 am Shipment information sent to FedEx

Arrived at FedEx location

Local Scan

MEMPHIS, TN

Shipment Facts

Tracking number	794561778634	Service	FedEx Priority Overnight
Weight	89 lbs	Delivered To	Shipping/Receiving
Total pieces	1	Total shipment	89 lbs / 40.4 kgs
Shipper reference	GRP-03-005	weight	00 1007 40.4 Ngo
Special handling section	Deliver Weekday	Packaging	Your Packaging

A-6004-842 (REV 2)

PRINTED 0 11/21/2012

	Y/SAMPLE ANALYSIS REQUEST W13-001-094	Page 1 of 1	ters-Husted Telephone No. 376-4650	Site Purchase Order/Charge Code 300071ES20	Ice Chest No.	Bill of Lading/Air	Offsite Property No.	SCIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes 🗹 No 🗌 Wide Generator Knowledge Information Form applies.	ample Analysis Holding Time Preservative	COMMON 7/40 Days Na2S2O3/Cool~4C	6 Months None	Matrix = Soil	SE = Sediment DL = SO = Solid		5- 1 1/2/12 6902	Disposed By ' h Date/Time
	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		Contact/Requester Karen Waters-Husted Telep	Sampling Origin Hanford Site Purch	Logbook No. HNF-N-506 Sl /7/	Method of Shipment Commercial Carrier Bill of	Priority: 45 Days Offsit	SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Information	ontainer Sample Analysis	aG 8041_PHENOLIC_GC: COMMON	1L P Activity Scan	Received By Print Sign	Received White MA 7.10 F.	Received By FEW EX	Brian Bayiels 6- 1 1/23/10	
Con 1991		2 SLI357	Collector DAVE FLOYD	13-001	Project Title RCRA, JANUARY 2013	Shipped To (Lab) TestAmerica St. Louis	Protocol RCRA P	POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)	Sample No. Filter * Date Time No/Type Container	B2N481 N W JAN 2 1 2013 1 3 4 3x1-L aG	B2N481 N W 1 1x20-mLP	Relinquished By Print Sign JAN 21 7113 15/1	Relinquished Buls JAN 2 2 2013 CS	te Majan	FUEX	FINAL SAMPLE Disposal Method (e.g., Return to customer, per lab procedure, used in process) DISPOSITION

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ttrix * DS	SedimentSolidSludge	ı > ×		Date/Time
JAN 2 1 2013 1530 S	JAN 2 2 2013 0930 SL	Date/Time W O	Date/Time 123	,
int Sign	Air		J-8	Disposed By
Received By Print	Record White MA	Received By (-(E)EX	Received By Schill	(sss
Date/Time AN 7 1 2013 1530	Date/Time JAN 2 2 2013 0930	JAN 2 2 2013 I 4 0 \odot	Date/Time	FINAL SAMPLE Disposal Method (e.g., Return to customer, per lab procedure, used in process) DISPOSITION
Print Sign)	ma 229 4 5	FULEX	Disposal Method (e.g., Return to
Relinquished By D.J. Woehle CHPRC	Relinquished By	^ر	Reimquished By 17/19/19	FINAL SAMPLE DISPOSITION

CH2MHill Plateau Remediation	ateau Re	emediation							C.O.C.#
Company	Í	17:0		CHAI	N OF CUSTOD	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	LYSIS REQU	JEST	W13-001-098
	Ų	ンコングチ							Page 1 of 1
Collector	D.J. Woehle CHPRC	el		Contact/F	Contact/Requester Karen Wat	Karen Waters-Husted	Telephone No.	376-4650	
SAF No.	W13-001	101		Sampling	Origin Hanford Site	ite	Purchase Order/Charge Code		300071ES20
Project Title	RCRA	RCRA, JANUARY 2013	2013	Logpook	No. HNF-N-50654 /2	14/21	Ice Chest No.	Ice Chest No. GWS - AP&	20
Shipped To (Lab) TestAmerica St. Louis	TestAı	merica St. Lou	iis	Method o	of Shipment Commerc	Commercial Carrier	Bill of Lading/A	r Bill No. 7945	Bill of Lading/Air Bill No. 7945 2058 7126
Protocol	RCRA			Priority:	45 Days		Offsite Property No.	No.	-
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentations tha releasable per DOE Order 5400 5 (1990/1993)	PLE HAZA) active Materia Irder 5400 5 (1	RDS/REMARKS Il at concentations th	at are not regulate.	OSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)		SPECIAL INSTRUCTIONS Hold Time Site Wide Generator Knowledge Information Form applies.	Hold Time ion Form applies.	Total Activity Ex	Total Activity Exemption: Yes 🗹 No 🗌
	-	-	į						
Sample No.	Filter *	Date	Time	No/Type Container	Sa	Sample Analysis	Holding Time	ime	Preservative
B2N496	× Z	1/1/a/1/3	00E	3x1-L aG	8041_PHENOLIC_GC: COMMON	COMMON	7/40 Days		Na2S2O3/Cool~4C
B2N496	M		<u> </u>	1x20-mL P	Activity Scan		6 Months	sh:	None

Date/Time

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Relinquished By CHPRC
CHPRC
CREED CONTROL SAMPLE
DISPOSITION

Thur Or	JAN 2 1 2013 15/1	Kecerved by Print S	JAN 2 1 2013 'S'
	JAN 2 2 2013 OG 30 CHPRC MAC 2	CHPRC MQ LS	JAN 2 2 2013 GGSO
Mallo	Date/Time JAN 2 2 2013 /400	400 FEDEX	Date/Time
FedEx	Date/Time `	Received By Sanial S-	Date Time $1/23/1$ 0 1 W
Disposal Method (e.g., Return to cu	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	ss) Disposed By	Α.

= Drum Liquids
= Tissue
= Wipe
= Liquid
= Vegetation
= Other

S SE SO O O O O O O

= Sludge = Water = Oil = Air

= Drum Solids

Matrix *

Sign

Print

Relinquished By

DAVE FLOYD

Relinquished By

CH2MHill Plateau Remediation	ıtean	Remediation						C.O.C.# XX71.2 00.1 10.1
Company		SU352	Y	CHAL	NOF CUSTO	IN OF CUSTODY/SAMPLE ANALYSIS REQUEST	LYSIS REQUEST	W13-001-101 Page 1 of 1
Collector DAVE FLOYD	OYO			Contact/Requester		Karen Waters-Husted	Telephone No. 376-4650	
SAF No.	W13	W13-001		Sampling Origin		Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	RCR	RCRA, JANUARY 2013	2013	Logbook No.		HNF-N-506 51 / 71	Ice Chest No. Chis- 288	- 25K
Shipped To (Lab)	Test	TestAmerica St. Louis	iis	Method o	of Shipment Com	Commercial Carrier	Bill of Lading/Air Bill No. 7945 7050 7/26	45 7050 7126
Protocol	RCRA	Y.		Priority:	45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REN ** ** Contains Radioactive Material at concent releasable per DOE Order 5400 5 (1990/1993)	CE HAZ ctive Mate der 5400	POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentations tha releasable per DOE Order 5400 5 (1990/1993)	S iat are not regulated	*** *** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)	RF but are not	SPECIAL INSTRUCTIONS Hold Time Site Wide Generator Knowledge Information Form applies.		Total Activity Exemption: Yes 🗹 No 🗌
Sample No.	Filter	* Date	Time	No/Type Container		Sample Analysis	Holding Time	Preservative
B2N4B7	z	w JAN 2 1 2013	113) 114	3x1-L aG	8041_PHENOLIC_GC: COMMON	GC: COMMON	7/40 Days	Na2S2O3/Cool~4C
B2N4B7	z	M M		1x20-mL P	Activity Scan		6 Months	None

Date/Time

PRINTED 0 11/21/2012

elinquished By	Pint Sign	Date/Time	Received By	Print Sign	Date/Time	Matri
D.J. Woehle	Lithold	JAN 2 1 2013 1520	1-155		JAN Z 1 2013 ,530	S
)	P	Date/Time JAN 2 2 2013/936	JAN 2 2 2013/093 CHPRC MACLES	W.E.	JAN 22 Merstrine School	SE = Sediment SO = Solid SL = Sludge
کج	OG LATE.	JAN 2 2 2013 /4 Ox.	Received By Fedbox	·	Date/Time	II II II
_	Falty	Date/Time	Received By Brials	50	Date/Time 1/23/12 090	
FINAL SAMPLE Dis	Disposal Method (e.g., Return to custom	tomer, per lab procedure, used in process)	(ss:	Disposed By		Date

Drum SolidsDrum Liquids

Matrix *

DS DL T WI

= Tissue = Wipe = Liquid = Vegetation = Other

Company		21.10	Į,	CHAIL	N OF CUS	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	ALYSIS REQUEST	W13-001-093
		いコジント	E F					Page 1 of 1
Collector	D.J. Woe CHPRC	D.J. Woehle CHPRC		Contact/I	Contact/Requester Ka	Karen Waters-Husted	Telephone No. 376-4650	
SAF No.	W13-001	100		Sampling (Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	RCRA	RCRA, JANUARY 2013	2013	Logbook	No. HNF-N	HNF-N-506 5 4/21	Ice Chest No. (SUS - 210)	012-
Shipped To (Lab)		TestAmerica St. Louis	iis	Method o	of Shipment C	Commercial Carrier	Bill of Lading/Air Bill No. 7	Bill of Lading/Air Bill No. 7945 7046 9978
Protocol	RCRA	ı		Priority:	45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentations tha releasable per DOE Order 5400 5 (1990/1993)	PLE HAZA pactive Materic Order 5400 5 (RDS/REMARKS al at concentations the 1990/1993)	at are not regulated	**** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)	RF but are not	SPECIAL INSTRUCTIONS Hold Time Site Wide Generator Knowledge Information Form applies.		Total Activity Exemption: Yes 🗹 No 🗌
Sample No.	Filter *	Date	Time	No/Type Container		Sample Analysis	Holding Time	Preservative
B2N477	z	W 112113	12112 1237	3x1-L aG	8041_PHENOL	8041_PHENOLIC_GC: COMMON	7/40 Days	Na2S2O3/Cool~4C
B2N477	z	///. M	\rightarrow	1x20-mL P	Activity Scan		6 Months	None
		>	>					

W13-001-093

CH2MHill Plateau Remediation

C.O.C.#

Drum Liquids

Маттіх *

WI

= Sludge

= 0il = Air

Date/Time

PRINTED 0 11/21/2012

Relinquished By	S, step	Sign Date/Time	Received By	Print	Sign	Date/Time
D.J. Woehle CHPRC	Mr. Doelle	JAN 2 1 2013 1570	 ⊗	1-1755		JAN 2 1 2013 1530
Relinquished By		Date/Time	Received By	9		Date/Time
SSU-1		JAN 2 2 2013 0 930	MA White	O CHERT THE LIKE		JAN 2 2 2913 0930
Relinquished By	(Date/Time	Received By	,		Date/Time
MA White 2007	٧		- I			
) Jagno a	11g Charles		1000×			
Relinquished By) 1	Date/Time	Received By			Date/Time
9/2		LACX	Schan	Panck B.	4	1/23/12 09a
(-)	Disposal Method	(e.g., Return to customer, per lab procedure, used in process)	cess)		Disposed By	
DISPOSITION						

Company Company	Company riateau nemeulation	7	CHAIN	OF CUST	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	LYSIS REQUEST	W13-001-095
۵	00/10 01/00/10	6				ı	Page 1 of 1
Collector CP	CHPRC		Contact/Requester	٠	Karen Waters-Husted	Telephone No. 376-4650	
SAF No.	W13-001		Sampling Origin		Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	RCRA, JANUARY 2013	.013	Logbook No.		HNF-N-506 54 / 22	Ice Chest No. (50) 5 ~ 21/0	210
Shipped To (Lab)	TestAmerica St. Louis	ĪS	Method of	Shipment Cor	Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No. 7945 7046 9978	86 99 4407 24
Protocol	RCRA		Priority:	45 Days		Offsite Property No.	
POSSIBLE SAMPI ** ** Contains Radioa releasable per DOE Or	POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)	ıt are not regulated f	or transportation per 49 CR	F but are not	SPECIAL INSTRUCTIONS Hold Time Site Wide Generator Knowledge Information Form applies.		Total Activity Exemption: Yes 🗹 No 🗌
Sample No.	Filter * Date	Time	No/Type Container		Sample Analysis	Holding Time	Preservative
B2N485	51/18/1 W N	S B	3x1-L aG	8041_PHENOLIC_GC: COMMON	GC: COMMON	7/40 Days	Na2S2O3/Cool~4C
B2N485) M	>	1x20-mL P	Activity Scan		6 Months	None

C.O.C.#

CH2MHill Plateau Remediation

IMPORTANT!

Super Bowl XLVII is causing delays in the New Orleans, LA area. Learn More



794570507126

Ship (P/U) date:

Tues 1/22/2013 3:19 pm

RICHLAND, WA US



Delivered Signed for by: J.CLARK Actual delivery: Wed 1/23/2013 9:03

EARTH CITY, MO US

EARTH CITY, MO

EARTH CITY, MO

EARTH CITY, MO

BERKELEY, MO

MEMPHIS, TN

MEMPHIS, TN

PASCO, WA

PASCO, WA

Let us tell you when your shipment arrives. Sign up for delivery notifications

Travel History

Date/Time Activity Location

- 1/23/2013 - Wednesday

9:03 am Delivered

6:42 am On FedEx vehicle for delivery

6:37 am At local FedEx facility

5:07 am At destination sort facility

4:18 am Departed FedEx location

12:17 am Arrived at FedEx location

- 1/22/2013 - Tuesday

5:15 pm Left FedEx origin facility

3:19 pm Picked up

Shipment information sent to FedEx 12:26 pm

Local Scan

Shipment Facts

Tracking number

Weight

Delivered To

Total shipment

weight

Packaging

794570507126

82 lbs

Shipping/Receiving

82 lbs / 37.2 kgs

Your Packaging

Service

Dimensions

Total pieces

Shipper reference

Special handling

section

FedEx Priority Overnight

28x16x16 in.

GWS-288

Deliver Weekday

https://www.fedex.com/fedextrack/index.htm?//www.fedextrack/index.htm?//www.fedextrack/index.htm.//www.fedextrack/i

IMPORTANT!

Super Bowl XLVII is causing delays in the New Orleans, LA area. Learn More



794570469978

Ship (P/U) date:

Tues 1/22/2013 3:19 pm

RICHLAND, WA US



Delivered Signed for by: J.CLARK Actual delivery: Wed 1/23/2013 9:03

EARTH CITY, MO US

on a \$100 color print order from FedEx Office® Print Online. Save now »

Travel History

Valid 1/7/13 - 2/15/13. Limitations apply.

y Location
Ċ

1/23/2013 - Wednesday

9:03 am Delivered EARTH CITY, MO

6:40 am On FedEx vehicle for delivery EARTH CITY, MO

6:35 am At local FedEx facility EARTH CITY, MO 5:07 am

At destination sort facility BERKELEY, MO

4:18 am Departed FedEx location MEMPHIS, TN

12:17 am Arrived at FedEx location MEMPHIS, TN

- 1/22/2013 - Tuesday

5:15 pm Left FedEx origin facility PASCO, WA

3:19 pm Picked up PASCO, WA

12:24 pm Shipment information sent to FedEx

Local Scan

Shipment Facts

Tracking number 794570469978 Service FedEx Priority Overnight Weight 50 lbs **Delivered To** Shipping/Receiving Total pieces Total shipment 50 lbs / 22.7 kgs

weight GWS-210 Shipper reference Packaging Your Packaging Special handling Deliver Weekday section

18781187840 XX

300071ES20

Purchase Order/Charge Code

376-4650

Telephone No.

Karen Waters-Husted

Contact/Requester Sampling Origin Logbook No.

Hanford Site HNF-N-506 å

Total Activity Exemption: Yes

Offsite Property No. 1/1/13 N/A

Bill of Lading/Air Bill No. Ice Chest No. July HTA

GOVERNMENT VEHICLE

Method of Shipment

falled in

SURV, JANUARY 2013

S13-001

Collector

45 Days

Priority:

AW. 1/24/13

POSSIBLE SAMPLE HAZARDS/REMARKS

SURV

Protocol

Shipped To (Lab)

Project Title

SAF No.

上午下后

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

Preservative Cool~4C

Holding Time 48 Hours

Sample Analysis

No/Type Container 1x500-mL P

Time

Date

Filter

Sample No.

B2N7T0

W1/2/13

300.0_ANIONS_IC: List-1 (5)

Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.

Hold Time

SPECIAL INSTRUCTIONS

S13-001-386

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

CH2MHill Plateau Remediation

Company

C.O.C.#

Page 1 of 1

	Relinquished By	Print Sign	Date/Time	Received By	Print	Sign	Date/Time		Matrix *	*	
	FMHall	January 1	JAN 2 3 2013 1520	Ŋ	55W-1	JA	JAN 2 3 2013 📝	1530 8	= Soil	DS =	= Drum Solids
	Relinquished By		JAN 2 4 2013 0800	Received By L.D. Wall	20 cos 01	20	JAN 2 4 2013 0800	800	iE = Sediment iO = Solid iL = Sludge	DL = T = WI	Drum Liquid Tissue Wipe
	Relinquished By CLD. Wall CHPRC	J. (). (Mad)	JAN 2 4 2013 1470	Received By FCOCY			Date/Time	8 O 4	V = Water $V = Oil$ $V = Oil$	X \ X	LiquidVegetationOther
~	Relinquished By Fed	1Ex	Date/Time	Received By Char	the Jill	- JilCher Ke	Date/Time 1,25-1/3 0930	Q	330		
0/0-	FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to cus	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	(ss	Dispo	Disposed By			Date/Time	lime	

ds zids

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* La10 218 7830

GWS-393 300071ES20

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Total Activity Exemption: Yes

Offsite Property No. Alligiell 3N/A

Ice Chest No.

Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.

Hold Time

SPECIAL INSTRUCTIONS

GOVERNMENT VEHICLE

Method of Shipment

45 Days

Priority:

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

POSSIBLE SAMPLE HAZARDS/REMARKS

HNF-N-506, 54 /22

SURV, JANUARY 2013

Waste Sar SURV

Shipped To (Lab)

Protocol

Project Title

FM Hall CHPRC S13-001

Collector SAF No.

Hanford Site

Preservative

Holding Time

Sample Analysis

No/Type Container 1x500-mL P

1058 Time

W 1/83/13

Date

Filter z

Sample No.

B2N781

300.0_ANIONS_IC: List-1 (5)

48 Hours

Cool~4C

\$13-001-315

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

CH2MHill Plateau Remediation

Company

C.O.C.#

Page 1 of 1

376-4650

Telephone No.

Karen Waters-Husted

Contact/Requester Sampling Origin Logbook No.

Purchase Order/Charge Code

Relinquished By	Print Sign	Date/Time	Received By	Print	Sign	Date/Time		* Matrix	*	
FM Hall	and the second	JAN 2 3 2013 1536	•	1-mss	,	JAN 2 3 2013	, S30 s	II	DS	= Drum Solids
Relinquished By H		JAN 2 4 2013 0800	Received By LD. Wall CHPRC	Q0.	00201	JAN 2 4 2013 OCOC	8	SE = Sediment SO = Solid SL = Sludge	T W	Drum LiquidsTissueWipe
Relinquished B. Wall CHPRC	J.O. Wall	JAN 2 4 2013 1400	Received By FEOEX	\ \ \		Date/Time		W = Water O = Oil A = Air		= Liquid = Vegetation = Other
Relinquished By FR EX	Ex	Date/Time	Received By	Clark Jillerk	ist Clark	Date/Time 1.25.13 0930	60	30		
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab proced	tomer, per lab procedure, used in process)			Disposed By			Date/Time	lime	Ē

A-6004-842 (REV 2)

2/19/2013

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CHZMHill PI	CH2MHill Plateau Remediation						Į	CU.C.#
Company	0 141 1		CHAIL	NOF CU	IN OF CUSTODY/SAMPLE ANALYSIS REQUEST	ALYSIS REQUE	ST	213-001-309
	JE 100							Page 1 of 1
Collector	F M Hall CHPRC		Contact/R	Contact/Requester K	Karen Waters-Husted	Telephone No.	376-4650	
SAF No.	S13-001		Sampling Origin		Hanford Site	Purchase Order/Charge Code	arge Code	300071ES20
Project Title	SURV, JANUARY 2013	3	Logbook No.		HNF-N-506 54 / 22	Ice Chest No. A.	の素	GWS-299
Shipped To (Lab)	Waste Sampling & Characterization	racterization	Method of	of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bi	MI No.	* 1945 9118
Protocol	SURV	THS &	U Priority:	45 Days		Offsite Property No.		Offsite Property No. AW 1/2/N/A
OSSIBLE SAMP ** ** Contains Radior	POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not	1 /2 e not regulated for	ון באור) I for transportation per 49 CR	AF but are not	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	Hold Time ation Form applies. The CACN for a	Total Activi	Total Activity Exemption: Yes 🗹 No 🗆 analytical work at WSCF is 401647.
rereasante per DOE C	rereasable pet LOE Citaet 5400 5 (1990/1995)							
Sample No.	Filter * Date	Time	No/Type Container		Sample Analysis	Holding Time	e e	Preservative
B2N7M8	N W 1/23/13	325	1x500-mL P	300.0_ANION	300.0_ANIONS_IC: List-1 (5)	48 Hours		Cool~4C

Relinquished By	Print Sign	Date/Time	Received By Print	Sign	Date/Time		Matrix *	
FW Hail	Marke O	JAN 2 3 2013 1530	55th- 1		JAN 2 3 2013 2533	S		Š
Relinquished By SCUL		JAN 2 4 2013 3800	Received By D. Wall C. (Mall)	Dall	JAN 2 4 2013 POO	# S #	Sediment Solid Sludge	OL = Drum Liquidi : = Tissue VI = Wipe
Relinquished By Wall CHPRC	P. O. Wall	JAN 2 4 2013 1400	Received By FEOEX		Date/Time	# # # ≫ O ∢	Water Oil Air	/ = Liquid / = Vegetation / = Other
Relinquished By Fag	Fader	Date/Time	Received By Clark	SIIIC	Jill Chark 1-25-13 0930	13 09.	30	
FINAL SAMPLE D DISPOSITION	Disposal Method (e.g., Return to cust	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Jan	Disposed By			Date/Fime	Je
PRINTED 0 11/21/2012							A-6004-842 (REV 2)	REV 2)

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Total Activity Exemption: Yes

Hold Time

SPECIAL INSTRUCTIONS

PRIORITY

31 Days

Priority:

Offsite Property No. 000 100 N/A

Bill of Lading/Air Bill No.

GOVERNMENT VEHICLE

Method of Shipment

HNF-N-506 94 / 22

24 1 Logbook No.

100KR4(2), NOVEMBER 2012

CHPRO 113-003

Collector

SAF No.

Waste Sam CERCLA

Shipped To (Lab)

Protocol

Project Title

Hanford Site

Preservative Cool~4C

Holding Time 48 Hours

Sample Analysis

No/Type Container 1x500-mL P

Time

Date

Filter

Sample No.

B2MP93

183/13

≥

300.0_ANIONS_IC: List-1 (5)

100 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647. FY12 and FY13 samples cannot be in the same SDG.

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

POSSIBLE SAMPLE HAZARDS/REMARKS & CO. 1 24 12

113-003-116

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

CH2MHill Plateau Remediation

Company

C.O.C.#

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300071ES20

376-4650

Telephone No.

Karen Waters-Husted

Contact/Requester

6.005-29a

Purchase Order/Charge Code

1

Relinquished By	Print Sign	Date/Time	Received By	Print Sign	л Date/Тіте	шe	Matrix *	*
		JAN 2 3 2013 1530		554.1	JAN 2 3 2013 1530		II	DS = Drum Solids
Relinquished By		JAN 2 4 2013 5600 Re	Received By L.D. Wall	J. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	JAN 7 4 2013 OSOO		= Sediment = Solid = Sludge	DL = Drum Liquids T = Tissue WI = Wipe
Relinquished By LD. Wall CHPRC	20.000	JAN 2 4 2013 1400	Received By FIG.		Date/Time	me W	= Water = Oil = Air	L = Liquid V = Vegetation X = Other
Relinquished By	y Ex	Date/Time	Received By	Park Jill Ch	1.24.13 Date/Time	7 ille 09930		
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure	customer, per lab procedure, used in process,	SS)	Disposed By			Date/Time	íme

A-6004-842 (REV 2)

2/19/2013

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113-012-040

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

CH2MHill Plateau Remediation

Company

C.O.C.#

43/65

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300071ES20

Purchase Order/Charge Code

N/A

Ice Chest No.

376-4650

Telephone No.

Karen Waters-Husted

Contact/Requester Sampling Origin Logbook No.

Hanford Site

HNF-N-506 **54**

88.4

2ZP1, JANUARY 2013

Waste Sa CERCLA

Shipped To (Lab)

Protocol

Project Title

CHPRC I13-012

Collector

SAF No.

Total Activity Exemption: Yes

200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order \$400 5 (1990/1993)

POSSIBLE SAMPLE HAZARDS/REMARKS

SPECIAL INSTRUCTIONS

Offsite Property No. 6 124 13 N/A

Bill of Lading/Air Bill No.

GOVERNMENT VEHICLE

Method of Shipment

45 Days

Priority:

Preservative Cool~4C

Holding Time 48 Hours

300.0_ANIONS_IC: List-1 + Brom_Phosp (7)

Sample Analysis

No/Type Container 1x500-mL P

Date

Filter z

Sample No.

B2N613

0200 Time

≥ *

A-6004-842 (REV 2)

Kelmquished By	rint / Nigh	Date/1me	Received By	Print	Night Man	Date/1 me	Matrix *	*
EM Hall	Market	JAN 2 3 2013 1530	55W-	-	JAN 7 3 2013	1530	II	DS = Drum Solids
Relinquished By #		JAN 2 4 2013 0,800	Received By L.D. Wall CHPRC	20,00g	JAN 14	JAN 2 4 2013 0800	SE = Sediment SO = Solid SL = Sludge	DL = Drum Liquids T = Tissue WI = Wipe
Relinquished By L.D. Wall CHPRC	£10,600	JAN 2 4 2013 1400	Received By VEX			Date/Time	W = Water O = Oil A = Air	L = Liquid V = Vegetation X = Other
Relinquished By	FOU EX	Date/Time	Received By Off	ule	J.11 Cherke 1.34.13 0430	Date/Time	0330	
FINAL SAMPLE DISPOSITION	FINAL SAMPLE Disposal Method (e.g., Return to customer, per lab procedure. DISPOSITION	mer, per lab procedure, used in proces)ss:	Q	Disposed By		Date/Time	Time

Matrix *

Print

Relinquished By

Page 25 of 56

PRINTED ON 1/2/2013

1/54/(5 Bill of Lading/Air Bill No. Ice Chest No. AW,

GOVERNMENT VEHICLE

Method of Shipment

2ZP1, JANUARY 2013

113-012

SAF No.

FATE CHPRC

Collector

Waste Sar CERCLA

Shipped To (Lab)

Protocol

Project Title

45 Days

Priority:

(124 E)

POSSIBLE SAMPLE HAZARDS/REMARKS

Offsite Property No.

Hold Time

SPECIAL INSTRUCTIONS

200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

6WS-SM3 300071ES20

113-012-043

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.#

Page 1 of 1

376-4650

Telephone No.

Karen Waters-Husted

Contact/Requester Sampling Origin Logbook No.

SLISSA

CH2MHill Plateau Remediation

Company

Hanford Site HNF-N-50654

Purchase Order/Charge Code

Š

Total Activity Exemption: Yes

Preservative Cool~4C

Holding Time 48 Hours

300.0_ANIONS_IC: List-1 + Brom_Phosp (7)

Sample Analysis

No/Type Container 1x500-mL P

Time

Date

Filter z

Sample No.

B2N614

≥

A-6004-842 (REV 2)

Date/Time Matrix *	JAN 2 3 2013 $/55J$ S = Soil DS = Drum Solids	Date/Time SC = Sediment DL = Drum Liqui SC = Solid T = Tissue SC = Solid T = Tissue SL = Sludge WI = Wipe	⊔ > ×	J.11 Clock 1-25-13 0831	DateTime
Print	1-755	Received By L.D. Wall () () ()	Received By Received By PEOEX	Received By Clark Jill	rocess) Disposed By
Print Sign Date/Time	SEST JAN 7 3 2013 1530) Date/Time JAN 7 4 2013 C800	Date Time Of Land 14 2013 14CC	Date/Time	Disposal Méthod (e.g., Return to customer, per lab procedure, used in process
Relinquished By	FW Hall	Relinquisheer By H	Relinquished Bywall CHPRC	Relinquished By FQ	FINAL SAMPLE Dis

PRINTED ON 1/2/2013

787

2216

Bill of Lading/Air Bill No. 7945

300071ES20

Purchase Order/Charge Code

Ice Chest No.

22/

Commercial Carrier

Method of Shipment

2ZP1, JANUARY 2013 TestAmerica St. Louis

CHPRC I13-012

Collector

SAF No.

45 Days

Priority:

376-4650

Telephone No.

Karen Waters-Husted

Contact/Requester Sampling Origin Logbook No.

SUSER

CH2MHill Plateau Remediation

Company

Hanford Site HNF-N-506

113-012-021

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.#

Page 1 of 1

8

Total Activity Exemption: Yes

₹/Q

Offsite Property No.

Hold Time

SPECIAL INSTRUCTIONS

200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

POSSIBLE SAMPLE HAZARDS/REMARKS

CERCLA

Protocol

Shipped To (Lab)

Project Title

ZnAc+NaOH to pH > 9/Cool~4C

None

6 Months 7 Days

Preservative

Holding Time

Sample Analysis

No/Type Container 3x500-mL G/P 1x20-mL P

Time

Date

Filter

Sample No.

B2N609 B2N609

≥ ≥

z z

9034_SULFIDE: COMMON

Activity Scan

A-6004-842 (REV 2)

Relinquished By	Print	Date/Time	Received By Print	Sign	Date/Time	* Matrix	* .×
CHPRC	Halley	JAN 2 3 2013 1530	35W-1	JAN 7 3	JAN 7 3 2013 /530	S	DS = Drum Solids
Relinquished By	77	Date/Time 07/0 Received By	Received By	1	Date/Time 07/0	SE = Sediment	DL = Drum Liqui T = Tissne
	25421	1-24-13	F.M. HALL &	Markell	1-24-13	ST =	MI =
Relinquished By		Date/Time 11100	Received By		Date/Time	W = Water	
7	F. W. HAII 3	The 1-24-13	FED EX			A = Air	X = Other
Relinquished By	-	Date/Time	Received By		Date/Time		
Fed	FOLK		All Clark	Jill Charke	1.25.13 0930	0530	
FINAL SÁMPLE	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	nner, per lab procedure, used in proces	// (ss	Disposed By		Date	Date/Time
DISPOSITION							

ids puids

Page 27 of 56

PRINTED ON 1/2/2013

ZnAc+NaOH to pH > 9/Cool~4C

Holding Time

Sample Analysis

No/Type Container 3x500-mL G/P 1x20-mL P

3

M

≥

B2N610 B2N610

Date 23

Filter N N

Sample No.

9034_SULFIDE: COMMON

Activity Scan

None

7 Days 6 Months

113-012-022

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

CH2MHill Plateau Remediation

Company

C.O.C.#

Page 1 of 1

300071ES20

Purchase Order/Charge Code

Ice Chest No.

376-4650

Telephone No.

Karen Waters-Husted

Contact/Requester
Sampling Origin
Logbook No.]

9122 200

Bill of Lading/Air Bill No. 7945

Total Activity Exemption: Yes

X

Offsite Property No.

Hold Time

SPECIAL INSTRUCTIONS

Commercial Carrier

Method of Shipment

45 Days

Priority:

Hanford Site HNF-N-506**5**4/**3**3

2ZP1, JANUARY 2013 TestAmerica St. Louis

CHPRC I13-012

SAF No.

Collector

200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

POSSIBLE SAMPLE HAZARDS/REMARKS

CERCLA

Protocol

Shipped To (Lab)

Project Title

Relinquished By	Print Sign	Date/Time	Received By Print	Sign	Date/Time	* Matrix	* xi
FM Hall	Jan 1	JAN 2 3 2013 1536	55W-1	JAN 2 3 2013	2013 1530	S .	DS = Drum Solids
Relinquished By	, 7	Date/Time 07/10	Received By		Date/Time 0710	SE = Sediment SO = Solid	DL = Drum Liquids T = Tissue
"	14 755	1-24-13	Fm +/411	BARRE	1-24-13	SL = Shudge	WI = Wipe
Relinquished By		Date/Time	Received By		Date/Time	W = Water	$L = Liquid$ $Y = Y_{conference}$
14.	1. M. HAI! MA	1-24-13 HR	Fed EX			A = Air	v – vegetation X = Other
Relinquished By	,	Date/Time	Recorned By		Date/Time		
Fee	fed tx		(Je Clark	Till Clark	1.25.13 0936	436	
FINAL SAMPLE	Disposal Method (e.g., Return to customer, per lab procedure,	tomer, per lab procedure, used in proce	Asse	Disposed By		Date	Date/Time
DISPOSITION							

A 6004-842 (REV.2)

2/19/2013

PRINTED ON 1/2/2013

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FedEx

Page 1 of 1

IMPORTANT!

Super Bowl XLVII is causing delays in the New Orleans, LA area. Learn More

Fed X

7	Q	Δ		Q	1	1	8	7	8	2	N
8	28		w. 3	× #	- 8	- 8	8.3	8	C.S		1.2

Ship (P/U) date:

Thur 1/24/2013 3:44 pm

RICHLAND, WA US



Delivered

Signed for by: B.DANIELS

Actual delivery : Fri 1/25/2013 9:25 aı

EARTH CITY, MO US

Let us tell you when your shipment arrives. Sign up for delivery notifications

Travel History

Date/Time Activity Location - 1/25/2013 - Friday

9:25 am Delivered EARTH CITY, MO 7:13 am On FedEx vehicle for delivery EARTH CITY, MO 7:09 am At local FedEx facility EARTH CITY, MO 5:06 am At destination sort facility BERKELEY, MO 4:16 am Departed FedEx location MEMPHIS, TN Arrived at FedEx location 12:39 am MEMPHIS, TN

- 1/24/2013 - Thursday

5:05 pm Left FedEx origin facility PASCO, WA 3:44 pm Picked up PASCO, WA

11:14 am Shipment information sent to FedEx

Local Scan

Your Packaging

Shipment Facts

Tracking number 794591187830 Service FedEx Priority Overnight Weight 43 lbs **Delivered To** Shipping/Receiving Total shipment Total pieces 43 lbs / 19.5 kgs weight Shipper reference GWS-292

Packaging

Special handling Deliver Weekday

section

https://www.fedex.com/fedextrack/index.html?tracknumbers=794591187830&cntry_code=us__2/1/2013

FedEx

Page 1 of 2

IMPORTANT!

Super Bowl XLVII is causing delays in the New Orleans, LA area. Learn More



794591222001

Ship (P/U) date : Thur 1/24/2013 3:44 pm

RICHLAND, WA US



Actual delivery : Fri 1/25/2013 9:25 aı

EARTH CITY, MO US

DeliveredSigned for by: B.DANIELS



Travel History

Date/Time	Activity	Location
1/25/20	13 - Friday	
9:25 am	Delivered	EARTH CITY, MO
7:13 am	On FedEx vehicle for delivery	EARTH CITY, MO
7:09 am	At local FedEx facility	EARTH CITY, MO
5:06 am	At destination sort facility	BERKELEY, MO
4:16 am	Departed FedEx location	MEMPHIS, TN
12:39 am	Arrived at FedEx location	MEMPHIS, TN
- 1/24/20	13 - Thursday	
5:05 pm	Left FedEx origin facility	PASCO, WA
3:44 pm	Picked up	PASCO, WA
11:17 am	Shipment information sent to FedEx	

Local Scan

Shipment Facts

Tracking number Weight	794591222001 43 lbs	Service Delivered To	FedEx Priority Overnight Shipping/Receiving
Total pieces Shipper reference	1 GWS-236	Total shipment weight	43 lbs / 19.5 kgs
Special handling section	Deliver Weekday	Packaging	Your Packaging

https://www.fedex.com/fedextrack/index.html?tracknumbers=794591222001&cntry_code=us 2/1/2013

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12

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Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-1307-1

SDG Number: SL1352

List Source: TestAmerica St. Louis

List Number: 1 Creator: Clarke, Jill

Login Number: 1307

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

N/A

Residual Chlorine Checked.

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-1307-1

SDG Number: SL1352

List Source: TestAmerica St. Louis

List Number: 1 Creator: Clarke, Jill

Login Number: 1309

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica St. Louis

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-1307-1

SDG Number: SL1352

List Source: TestAmerica St. Louis

List Number: 1

Creator: Daniels, Brian

Login Number: 1317

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica St. Louis

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-1307-1

SDG Number: SL1352

2/19/2013

Login Number: 1340 List Source: TestAmerica St. Louis

List Number: 1 Creator: Clarke, Jill

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Client: CH2M Hill Plateau Remediation Company Project/Site: S,W,I,A,X SAFS- GROUNDWATER

Not detected at the reporting limit (or MDL or EDL if shown)

Relative Percent Difference, a measure of the relative difference between two points

Reporting Limit or Requested Limit (Radiochemistry)

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Quality Control

Relative error ratio

TestAmerica Job ID: 160-1307-1

SDG: SL1352

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description	
U	Analyzed for but not detected.	

General Chemistry

Qualifier	Qualifier Description
В	Estimated result. Result is less than the RL, but greater than MDL
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
U	Analyzed for but not detected.
С	The analyte was detected in both the sample and the assoicated QC blank, and the sample concentration was = 5X the blank concentration.</td

Glossary

ND

PQL

QC

RER

RPD TEF

TEQ

RL

Abbreviation	These commonly used abbreviations may or may not be present in this report.
₩	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

TestAmerica St. Louis



Client: CH2M Hill Plateau Remediation Company Project/Site: S,W,I,A,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1

SDG: SL1352

Method	Method Description	Protocol	Laboratory
8041A	Phenols (GC)	SW846	TAL SL
300.0	Anions, Ion Chromatography	MCAWW	TAL SL
9034	Sulfide, Acid Soluble and Insoluble (Titrimetric)	SW846	TAL SL

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

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13



TestAmerica Job ID: 160-1307-1

SDG: SL1352

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-1307-1	B2N4T0	Water	01/18/13 09:10	01/22/13 11:34
160-1307-2	B2N489	Water	01/18/13 07:15	01/22/13 11:34
160-1307-3	B2N490	Water	01/18/13 11:55	01/22/13 11:34
160-1309-1	B2N5X0	Water	01/18/13 09:47	01/22/13 09:00
160-1309-2	B2N5W9	Water	01/18/13 09:47	01/22/13 09:00
160-1317-1	B2N481	Water	01/21/13 12:34	01/23/13 09:00
160-1317-2	B2N496	Water	01/21/13 11:20	01/23/13 09:00
160-1317-3	B2N4B7	Water	01/21/13 11:14	01/23/13 09:00
160-1317-4	B2N477	Water	01/21/13 12:37	01/23/13 09:00
160-1317-5	B2N485	Water	01/21/13 09:50	01/23/13 09:00
160-1340-1	B2N7T0	Water	01/23/13 09:30	01/25/13 09:29
160-1340-2	B2N781	Water	01/23/13 10:58	01/25/13 09:29
160-1340-3	B2N7M8	Water	01/23/13 12:35	01/25/13 09:29
160-1340-4	B2MP93	Water	01/23/13 14:16	01/25/13 09:29
160-1340-5	B2N613	Water	01/23/13 07:30	01/25/13 09:29
160-1340-6	B2N614	Water	01/23/13 15:18	01/25/13 09:29
160-1340-7	B2N609	Water	01/23/13 07:30	01/25/13 09:29
160-1340-8	B2N610	Water	01/23/13 15:18	01/25/13 09:29

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TestAmerica Job ID: 160-1307-1

SDG: SL1352

Client Sample ID: B2N4T0 Lab Sample ID: 160-1307-1 No Detections Client Sample ID: B2N489 Lab Sample ID: 160-1307-2 No Detections Client Sample ID: B2N490 Lab Sample ID: 160-1307-3 No Detections Client Sample ID: B2N5X0 Lab Sample ID: 160-1309-1 Analyte Result Qualifier RL MDL Unit Dil Fac D Method **Prep Type** Sulfide 0.60 B 1.0 0.083 mg/L 9034 Total/NA Client Sample ID: B2N5W9 Lab Sample ID: 160-1309-2 Analyte Result Qualifier RL MDL Unit Dil Fac D Method Prep Type Sulfide 0.60 B 1.0 0.083 mg/L 9034 Total/NA Lab Sample ID: 160-1317-1 Client Sample ID: B2N481 No Detections

Client Sample ID: B2N496 Lab Sample ID: 160-1317-2

No Detections

Client Sample ID: B2N4B7 Lab Sample ID: 160-1317-3

No Detections

Client Sample ID: B2N477 Lab Sample ID: 160-1317-4

No Detections

Client Sample ID: B2N485 Lab Sample ID: 160-1317-5

No Detections

Client Sample ID: B2N7T0 Lab Sample ID: 160-1340-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.31		0.10	0.010	mg/L	1	_	300.0	Total/NA
Chloride	7.3	D	2.0	0.20	mg/L	10		300.0	Total/NA
Sulfate	23.7	D	5.0	0.50	mg/L	10		300.0	Total/NA

Client Sample ID: B2N781 Lab Sample ID: 160-1340-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.23		0.10	0.010	mg/L	1		300.0	Total/NA
Chloride	15.0	D	2.0	0.20	mg/L	10		300.0	Total/NA
Sulfate	57.0	D	5.0	0.50	mg/L	10		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

2/19/2013



TestAmerica Job ID: 160-1307-1

SDG: SL1352

Client Sample ID: B2N7M8	Lab Sample ID: 160-1340-3
--------------------------	---------------------------

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
Fluoride	0.40	0.10	0.010 mg/L		300.0	Total/NA
Chloride	8.2 D	2.0	0.20 mg/L	10	300.0	Total/NA
Sulfate	24.5 D	5.0	0.50 mg/L	10	300.0	Total/NA

Client Sample ID: B2MP93 Lab Sample ID: 160-1340-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.26		0.10	0.010	mg/L	1	_	300.0	 Total/NA
Chloride	12.5	D	2.0	0.20	mg/L	10		300.0	Total/NA
Sulfate	63.3	D	5.0	0.50	mg/L	10		300.0	Total/NA

Client Sample ID: B2N613 Lab Sample ID: 160-1340-5

No Detections

Client Sample ID: B2N614 Lab Sample ID: 160-1340-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.29		0.10	0.010	mg/L	1	_	300.0	Total/NA
Bromide	0.089	В	0.25	0.025	mg/L	1		300.0	Total/NA
Chloride - DL	11.9	D	4.0	0.40	mg/L	20		300.0	Total/NA
Sulfate - DL	30.8	D	10.0	1.0	mg/L	20		300.0	Total/NA

Client Sample ID: B2N609 Lab Sample ID: 160-1340-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfide	1.1	С	1.0	0.083	mg/L	1		9034	Total/NA

Client Sample ID: B2N610 Lab Sample ID: 160-1340-8

Analyte	Result Qu	alifier RL	MDL	Unit	Dil Fac	Method	Prep Type
Sulfide	1.1 C	1.0	0.083	ma/L		9034	Total/NA

This Detection Summary does not include radiochemical test results.

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TestAmerica Job ID: 160-1307-1

SDG: SL1352

Method: 8041A - Phenols (GC)

Client Sample ID: B2N4T0
Date Collected: 01/18/13 09:10
Date Received: 01/22/13 11:34

Lab Sample ID: 160-1307-1 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.1	U	4.7	2.1	ug/L		01/22/13 15:26	01/24/13 14:11	1
2,4,5-Trichlorophenol	1.3	U	4.7	1.3	ug/L		01/22/13 15:26	01/24/13 14:11	1
2,4,6-Trichlorophenol	1.2	U	4.7	1.2	ug/L		01/22/13 15:26	01/24/13 14:11	1
2,4-Dichlorophenol	1.4	U	4.7	1.4	ug/L		01/22/13 15:26	01/24/13 14:11	1
2,4-Dimethylphenol	1.2	U	4.7	1.2	ug/L		01/22/13 15:26	01/24/13 14:11	1
2,4-Dinitrophenol	1.7	U	4.7	1.7	ug/L		01/22/13 15:26	01/24/13 14:11	1
2,6-Dichlorophenol	1.2	U	4.7	1.2	ug/L		01/22/13 15:26	01/24/13 14:11	1
2-Chlorophenol	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 14:11	1
2-Methylphenol	1.4	U	4.7	1.4	ug/L		01/22/13 15:26	01/24/13 14:11	1
2-Nitrophenol	0.68	U	4.7	0.68	ug/L		01/22/13 15:26	01/24/13 14:11	1
3 & 4 Methylphenol	1.5	U	4.7	1.5	ug/L		01/22/13 15:26	01/24/13 14:11	1
4,6-Dinitro-2-methylphenol	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 14:11	1
4-Chloro-3-methylphenol	1.3	U	4.7	1.3	ug/L		01/22/13 15:26	01/24/13 14:11	1
4-Nitrophenol	1.8	U	4.7	1.8	ug/L		01/22/13 15:26	01/24/13 14:11	1
Dinoseb	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 14:11	1
Pentachlorophenol	1.4	U	4.7	1.4	ug/L		01/22/13 15:26	01/24/13 14:11	1
Phenol	1.7	U	4.7	1.7	ug/L		01/22/13 15:26	01/24/13 14:11	1

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 54 - 139 01/22/13 15:26 2,4,6-Tribromophenol 86 01/24/13 14:11 2-Fluorophenol 73 34 - 121 01/22/13 15:26 01/24/13 14:11

Client Sample ID: B2N489
Date Collected: 01/18/13 07:15
Date Received: 01/22/13 11:34

2-Fluorophenol

Lab Sample ID: 160-1307-2 Matrix: Water

Date Received: 01/22/13 11:3	4								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.1	U	4.7	2.1	ug/L		01/22/13 15:26	01/24/13 15:19	1
2,4,5-Trichlorophenol	1.3	U	4.7	1.3	ug/L		01/22/13 15:26	01/24/13 15:19	1
2,4,6-Trichlorophenol	1.2	U	4.7	1.2	ug/L		01/22/13 15:26	01/24/13 15:19	1
2,4-Dichlorophenol	1.4	U	4.7	1.4	ug/L		01/22/13 15:26	01/24/13 15:19	1
2,4-Dimethylphenol	1.2	U	4.7	1.2	ug/L		01/22/13 15:26	01/24/13 15:19	1
2,4-Dinitrophenol	1.7	U	4.7	1.7	ug/L		01/22/13 15:26	01/24/13 15:19	1
2,6-Dichlorophenol	1.2	U	4.7	1.2	ug/L		01/22/13 15:26	01/24/13 15:19	1
2-Chlorophenol	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 15:19	1
2-Methylphenol	1.4	U	4.7	1.4	ug/L		01/22/13 15:26	01/24/13 15:19	1
2-Nitrophenol	0.68	U	4.7	0.68	ug/L		01/22/13 15:26	01/24/13 15:19	1
3 & 4 Methylphenol	1.5	U	4.7	1.5	ug/L		01/22/13 15:26	01/24/13 15:19	1
4,6-Dinitro-2-methylphenol	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 15:19	1
4-Chloro-3-methylphenol	1.3	U	4.7	1.3	ug/L		01/22/13 15:26	01/24/13 15:19	1
4-Nitrophenol	1.8	U	4.7	1.8	ug/L		01/22/13 15:26	01/24/13 15:19	1
Dinoseb	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 15:19	1
Pentachlorophenol	1.4	U	4.7	1.4	ug/L		01/22/13 15:26	01/24/13 15:19	1
Phenol	1.7	U	4.7	1.7	ug/L		01/22/13 15:26	01/24/13 15:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	69		54 - 139				01/22/13 15:26	01/24/13 15:19	1

TestAmerica St. Louis

01/24/13 15:19

01/22/13 15:26

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TestAmerica Job ID: 160-1307-1

SDG: SL1352

Method: 8041A - Phenols (GC)

Client Sample ID: B2N490 Lab Sample ID: 160-1307-3 Date Collected: 01/18/13 11:55 **Matrix: Water**

Date Received: 01/22/13 11:34

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.1		4.7	2.1	ug/L		01/22/13 15:26	01/24/13 15:41	1
2,4,5-Trichlorophenol	1.3	U	4.7	1.3	ug/L		01/22/13 15:26	01/24/13 15:41	1
2,4,6-Trichlorophenol	1.2	U	4.7	1.2	ug/L		01/22/13 15:26	01/24/13 15:41	1
2,4-Dichlorophenol	1.4	U	4.7	1.4	ug/L		01/22/13 15:26	01/24/13 15:41	1
2,4-Dimethylphenol	1.3	U	4.7	1.3	ug/L		01/22/13 15:26	01/24/13 15:41	1
2,4-Dinitrophenol	1.7	U	4.7	1.7	ug/L		01/22/13 15:26	01/24/13 15:41	1
2,6-Dichlorophenol	1.2	U	4.7	1.2	ug/L		01/22/13 15:26	01/24/13 15:41	1
2-Chlorophenol	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 15:41	1
2-Methylphenol	1.4	U	4.7	1.4	ug/L		01/22/13 15:26	01/24/13 15:41	1
2-Nitrophenol	0.68	U	4.7	0.68	ug/L		01/22/13 15:26	01/24/13 15:41	1
3 & 4 Methylphenol	1.5	U	4.7	1.5	ug/L		01/22/13 15:26	01/24/13 15:41	1
4,6-Dinitro-2-methylphenol	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 15:41	1
4-Chloro-3-methylphenol	1.3	U	4.7	1.3	ug/L		01/22/13 15:26	01/24/13 15:41	1
4-Nitrophenol	1.8	U	4.7	1.8	ug/L		01/22/13 15:26	01/24/13 15:41	1
Dinoseb	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 15:41	1
Pentachlorophenol	1.5	U	4.7	1.5	ug/L		01/22/13 15:26	01/24/13 15:41	1
Phenol	1.7	U	4.7	1.7	ug/L		01/22/13 15:26	01/24/13 15:41	1

Surrogate	%Recovery Qu	ualifier Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	86	54 - 139	01/22/13 15:26	01/24/13 15:41	1
2-Fluorophenol	71	34 - 121	01/22/13 15:26	01/24/13 15:41	1

Client Sample ID: B2N481 Lab Sample ID: 160-1317-1 Date Collected: 01/21/13 12:34 **Matrix: Water**

Date Collected: 01/21/13 12:34								Matrix	c: water
Date Received: 01/23/13 09:00 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.1	U	4.8	2.1	ug/L		01/24/13 12:09	01/25/13 14:28	1
2,4,5-Trichlorophenol	1.3	U	4.8	1.3	ug/L		01/24/13 12:09	01/25/13 14:28	1
2,4,6-Trichlorophenol	1.2	U	4.8	1.2	ug/L		01/24/13 12:09	01/25/13 14:28	1
2,4-Dichlorophenol	1.4	U	4.8	1.4	ug/L		01/24/13 12:09	01/25/13 14:28	1
2,4-Dimethylphenol	1.3	U	4.8	1.3	ug/L		01/24/13 12:09	01/25/13 14:28	1
2,4-Dinitrophenol	1.7	U	4.8	1.7	ug/L		01/24/13 12:09	01/25/13 14:28	1
2,6-Dichlorophenol	1.2	U	4.8	1.2	ug/L		01/24/13 12:09	01/25/13 14:28	1
2-Chlorophenol	1.6	U	4.8	1.6	ug/L		01/24/13 12:09	01/25/13 14:28	1
2-Methylphenol	1.4	U	4.8	1.4	ug/L		01/24/13 12:09	01/25/13 14:28	1
2-Nitrophenol	0.68	U	4.8	0.68	ug/L		01/24/13 12:09	01/25/13 14:28	1
3 & 4 Methylphenol	1.5	U	4.8	1.5	ug/L		01/24/13 12:09	01/25/13 14:28	1
4,6-Dinitro-2-methylphenol	1.6	U	4.8	1.6	ug/L		01/24/13 12:09	01/25/13 14:28	1
4-Chloro-3-methylphenol	1.3	U	4.8	1.3	ug/L		01/24/13 12:09	01/25/13 14:28	1
4-Nitrophenol	1.8	U	4.8	1.8	ug/L		01/24/13 12:09	01/25/13 14:28	1
Dinoseb	1.6	U	4.8	1.6	ug/L		01/24/13 12:09	01/25/13 14:28	1
Pentachlorophenol	1.5	U	4.8	1.5	ug/L		01/24/13 12:09	01/25/13 14:28	1
Phenol	1.7	U	4.8	1.7	ug/L		01/24/13 12:09	01/25/13 14:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	70		54 - 139				01/24/13 12:09	01/25/13 14:28	1
2-Fluorophenol	62		34 - 121				01/24/13 12:09	01/25/13 14:28	1



TestAmerica Job ID: 160-1307-1

SDG: SL1352

Method: 8041A - Phenols (GC)

Client Sample ID: B2N496

Date Collected: 01/21/13 11:20

Matrix: Water

Date Received: 01/23/13 09:00 Result Qualifier RLMDL Unit D Prepared Dil Fac Analyte Analyzed 2,3,4,6-Tetrachlorophenol 2.1 U 4.7 01/24/13 12:09 01/25/13 15:36 2.1 ug/L 01/24/13 12:09 01/25/13 15:36 2,4,5-Trichlorophenol 1.3 U 4.7 1.3 ug/L 2,4,6-Trichlorophenol 1.2 U 4.7 1.2 ug/L 01/24/13 12:09 01/25/13 15:36 01/25/13 15:36 2,4-Dichlorophenol 1.4 U 4.7 1.4 ug/L 01/24/13 12:09 2,4-Dimethylphenol 1.3 U 4.7 1.3 ug/L 01/24/13 12:09 01/25/13 15:36 2,4-Dinitrophenol 1.7 U 01/24/13 12:09 01/25/13 15:36 47 1.7 ug/L 2,6-Dichlorophenol 1.2 U 4.7 1.2 ug/L 01/24/13 12:09 01/25/13 15:36 2-Chlorophenol 1.6 U 4.7 01/24/13 12:09 01/25/13 15:36 1.6 ug/L 2-Methylphenol 1.4 U 4.7 1.4 ug/L 01/24/13 12:09 01/25/13 15:36 2-Nitrophenol 0.68 U 4.7 0.68 ug/L 01/24/13 12:09 01/25/13 15:36 3 & 4 Methylphenol 01/24/13 12:09 1.5 U 4.7 1.5 ug/L 01/25/13 15:36 4,6-Dinitro-2-methylphenol 4.7 01/24/13 12:09 01/25/13 15:36 1.6 U 1.6 ug/L 4-Chloro-3-methylphenol 13 U 4.7 1.3 ug/L 01/24/13 12:09 01/25/13 15:36 4-Nitrophenol 1.8 U 4.7 1.8 ug/L 01/24/13 12:09 01/25/13 15:36 Dinoseb 16 U 47 1.6 ug/L 01/24/13 12:09 01/25/13 15:36 Pentachlorophenol 1.5 U 4.7 1.5 ug/L 01/24/13 12:09 01/25/13 15:36 1.7 U 4.7 01/24/13 12:09 Phenol 1.7 ug/L 01/25/13 15:36

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	72	54 - 139	01/24/13 12:09	01/25/13 15:36	1
2-Fluorophenol	62	34 - 121	01/24/13 12:09	01/25/13 15:36	1

Client Sample ID: B2N4B7

Date Collected: 01/21/13 11:14

Matrix: Water

Date Received: 01/23/13 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.1	U	4.8	2.1	ug/L		01/24/13 12:09	01/25/13 15:58	1
2,4,5-Trichlorophenol	1.3	U	4.8	1.3	ug/L		01/24/13 12:09	01/25/13 15:58	1
2,4,6-Trichlorophenol	1.2	U	4.8	1.2	ug/L		01/24/13 12:09	01/25/13 15:58	1
2,4-Dichlorophenol	1.4	U	4.8	1.4	ug/L		01/24/13 12:09	01/25/13 15:58	1
2,4-Dimethylphenol	1.3	U	4.8	1.3	ug/L		01/24/13 12:09	01/25/13 15:58	1
2,4-Dinitrophenol	1.7	U	4.8	1.7	ug/L		01/24/13 12:09	01/25/13 15:58	1
2,6-Dichlorophenol	1.2	U	4.8	1.2	ug/L		01/24/13 12:09	01/25/13 15:58	1
2-Chlorophenol	1.6	U	4.8	1.6	ug/L		01/24/13 12:09	01/25/13 15:58	1
2-Methylphenol	1.4	U	4.8	1.4	ug/L		01/24/13 12:09	01/25/13 15:58	1
2-Nitrophenol	0.69	U	4.8	0.69	ug/L		01/24/13 12:09	01/25/13 15:58	1
3 & 4 Methylphenol	1.5	U	4.8	1.5	ug/L		01/24/13 12:09	01/25/13 15:58	1
4,6-Dinitro-2-methylphenol	1.6	U	4.8	1.6	ug/L		01/24/13 12:09	01/25/13 15:58	1
4-Chloro-3-methylphenol	1.3	U	4.8	1.3	ug/L		01/24/13 12:09	01/25/13 15:58	1
4-Nitrophenol	1.8	U	4.8	1.8	ug/L		01/24/13 12:09	01/25/13 15:58	1
Dinoseb	1.6	U	4.8	1.6	ug/L		01/24/13 12:09	01/25/13 15:58	1
Pentachlorophenol	1.5	U	4.8	1.5	ug/L		01/24/13 12:09	01/25/13 15:58	1
Phenol	1.7	U	4.8	1.7	ug/L		01/24/13 12:09	01/25/13 15:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analvzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	65		54 - 139	01/24/13 12:09	01/25/13 15:58	1
2-Fluorophenol	56		34 - 121	01/24/13 12:09	01/25/13 15:58	1

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TestAmerica Job ID: 160-1307-1

SDG: SL1352

Method: 8041A - Phenols (GC)

2-Fluorophenol

Client Sample ID: B2N477 Lab Sample ID: 160-1317-4

Date Collected: 01/21/13 12:37

Page Respired: 04/32/43 00:00

Date Received: 01/23/13 09:00									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.1	U	4.7	2.1	ug/L		01/24/13 12:09	01/25/13 16:21	1
2,4,5-Trichlorophenol	1.3	U	4.7	1.3	ug/L		01/24/13 12:09	01/25/13 16:21	1
2,4,6-Trichlorophenol	1.2	U	4.7	1.2	ug/L		01/24/13 12:09	01/25/13 16:21	1
2,4-Dichlorophenol	1.4	U	4.7	1.4	ug/L		01/24/13 12:09	01/25/13 16:21	1
2,4-Dimethylphenol	1.3	U	4.7	1.3	ug/L		01/24/13 12:09	01/25/13 16:21	1
2,4-Dinitrophenol	1.7	U	4.7	1.7	ug/L		01/24/13 12:09	01/25/13 16:21	1
2,6-Dichlorophenol	1.2	U	4.7	1.2	ug/L		01/24/13 12:09	01/25/13 16:21	1
2-Chlorophenol	1.6	U	4.7	1.6	ug/L		01/24/13 12:09	01/25/13 16:21	1
2-Methylphenol	1.4	U	4.7	1.4	ug/L		01/24/13 12:09	01/25/13 16:21	1
2-Nitrophenol	0.68	U	4.7	0.68	ug/L		01/24/13 12:09	01/25/13 16:21	1
3 & 4 Methylphenol	1.5	U	4.7	1.5	ug/L		01/24/13 12:09	01/25/13 16:21	1
4,6-Dinitro-2-methylphenol	1.6	U	4.7	1.6	ug/L		01/24/13 12:09	01/25/13 16:21	1
4-Chloro-3-methylphenol	1.3	U	4.7	1.3	ug/L		01/24/13 12:09	01/25/13 16:21	1
4-Nitrophenol	1.8	U	4.7	1.8	ug/L		01/24/13 12:09	01/25/13 16:21	1
Dinoseb	1.6	U	4.7	1.6	ug/L		01/24/13 12:09	01/25/13 16:21	1
Pentachlorophenol	1.4	U	4.7	1.4	ug/L		01/24/13 12:09	01/25/13 16:21	1
Phenol	1.7	U	4.7	1.7	ug/L		01/24/13 12:09	01/25/13 16:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

_	=			=	
2,4,6-Tribromophenol	61	54 - 139	01/24/13 12:09	01/25/13 16:21	1
2-Fluorophenol	52	34 - 121	01/24/13 12:09	01/25/13 16:21	1
_					

Client Sample ID: B2N485

Date Collected: 01/21/13 09:50

Matrix: Water

Date Received: 01/23/13 09:00									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.1	U	4.7	2.1	ug/L		01/24/13 12:09	01/25/13 16:43	1
2,4,5-Trichlorophenol	1.3	U	4.7	1.3	ug/L		01/24/13 12:09	01/25/13 16:43	1
2,4,6-Trichlorophenol	1.2	U	4.7	1.2	ug/L		01/24/13 12:09	01/25/13 16:43	1
2,4-Dichlorophenol	1.4	U	4.7	1.4	ug/L		01/24/13 12:09	01/25/13 16:43	1
2,4-Dimethylphenol	1.2	U	4.7	1.2	ug/L		01/24/13 12:09	01/25/13 16:43	1
2,4-Dinitrophenol	1.7	U	4.7	1.7	ug/L		01/24/13 12:09	01/25/13 16:43	1
2,6-Dichlorophenol	1.2	U	4.7	1.2	ug/L		01/24/13 12:09	01/25/13 16:43	1
2-Chlorophenol	1.6	U	4.7	1.6	ug/L		01/24/13 12:09	01/25/13 16:43	1
2-Methylphenol	1.4	U	4.7	1.4	ug/L		01/24/13 12:09	01/25/13 16:43	1
2-Nitrophenol	0.68	U	4.7	0.68	ug/L		01/24/13 12:09	01/25/13 16:43	1
3 & 4 Methylphenol	1.5	U	4.7	1.5	ug/L		01/24/13 12:09	01/25/13 16:43	1
4,6-Dinitro-2-methylphenol	1.6	U	4.7	1.6	ug/L		01/24/13 12:09	01/25/13 16:43	1
4-Chloro-3-methylphenol	1.3	U	4.7	1.3	ug/L		01/24/13 12:09	01/25/13 16:43	1
4-Nitrophenol	1.8	U	4.7	1.8	ug/L		01/24/13 12:09	01/25/13 16:43	1
Dinoseb	1.6	U	4.7	1.6	ug/L		01/24/13 12:09	01/25/13 16:43	1
Pentachlorophenol	1.4	U	4.7	1.4	ug/L		01/24/13 12:09	01/25/13 16:43	1
Phenol	1.7	U	4.7	1.7	ug/L		01/24/13 12:09	01/25/13 16:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	61		54 - 139				01/24/13 12:09	01/25/13 16:43	1

TestAmerica St. Louis

01/25/13 16:43

01/24/13 12:09

34 - 121

TestAmerica Job ID: 160-1307-1

Lab Sample ID: 160-1340-2

SDG: SL1352

General Chemistry

Client Sample ID: B2N781

Client Sample ID: B2N5X0 Date Collected: 01/18/13 09:47							Lal	o Sample ID: 160 Matrix)-1309-1 c: Water
Date Received: 01/22/13 09:00 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	0.60	В	1.0	0.083	mg/L			01/25/13 14:59	1
Client Sample ID: B2N5W9							Lal	Sample ID: 160	-1309-2
Date Collected: 01/18/13 09:47								Matrix	c: Water

Date Received: 01/22/13 09:00									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	0.60	В	1.0	0.083	mg/L			01/25/13 14:59	1

Client Sample ID: B2N7T0 Date Collected: 01/23/13 09:30							Lat	Sample ID: 160 Matrix)-1340-1 c: Water
Date Received: 01/25/13 09:29									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.31		0.10	0.010	mg/L			01/31/13 22:35	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.31		0.10	0.010	mg/L	 		01/31/13 22:35	1
Chloride	7.3	D	2.0	0.20	mg/L			01/31/13 22:52	10
Sulfate	23.7	D	5.0	0.50	mg/L			01/31/13 22:52	10
_									

Data Callested: 04/22/42 40:50							Madules M								
Date Collected: 01/23/13 10:58								Matrix	Matrix: Water						
Date Received: 01/25/13 09:29															
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac						
Fluoride	0.23		0.10	0.010	mg/L			02/01/13 00:14	1						
Chloride	15.0	D	2.0	0.20	mg/L			02/01/13 00:30	10						

Suitate	57.0 D	5.0	0.50 Hig/L	02/01/13 00.30
Г				
Client Sample ID: B2N7M8				Lab Sample ID: 160-1340-3
Date Collected: 01/23/13 12:35				Matrix: Water

Date Received: 01/25/13 09:29									
Analyte	Result	Qualifier	RL	MDL	Unit)	Prepared	Analyzed	Dil Fac
Fluoride	0.40		0.10	0.010	mg/L	 		02/01/13 00:47	1
Chloride	8.2	D	2.0	0.20	mg/L			02/01/13 01:03	10
Sulfate	24.5	D	5.0	0.50	mg/L			02/01/13 01:03	10

Client Sample ID: B2MP93	Lab Sample ID: 160-1340-4
Date Collected: 01/23/13 14:16	Matrix: Water
Data Bassing dr 04/25/42 00:20	

Date Received: 01/25/13 09:29									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.26		0.10	0.010	mg/L			02/01/13 01:52	1
Chloride	12.5	D	2.0	0.20	mg/L			02/01/13 02:09	10
Sulfate	63.3	D	5.0	0.50	mg/L			02/01/13 02:09	10

Client Sample ID: B2N613	Lab Sample ID: 160-1340-5
Date Collected: 01/23/13 07:30	Matrix: Water

Date Received: 01/25/13 09:29									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.010	U	0.10	0.010	mg/L			01/25/13 21:57	1
Chloride	0.020	U	0.20	0.020	mg/L			01/25/13 21:57	1
Bromide	0.025	U	0.25	0.025	mg/L			01/25/13 21:57	1
Sulfate	0.050	U	0.50	0.050	mg/L			01/25/13 21:57	1
Orthophosphate	0.054	U	0.50	0.054	mg/L			01/25/13 21:57	1
Nitrite as N	0.0030	U	0.020	0.0030	mg/L			01/25/13 21:57	1
Nitrate as N	0.0040	U	0.020	0.0040	mg/L			01/25/13 21:57	1



TestAmerica Job ID: 160-1307-1

Lab Sample ID: 160-1340-6

SDG: SL1352

General Chemistry

Client Sample ID: B2N614 Date Collected: 01/23/13 15:18		Lal	o Sample ID: 160 Matrix	-1340-6 :: Water					
Date Received: 01/25/13 09:29 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.29		0.10	0.010	mg/L			01/26/13 03:12	1
Bromide	0.089	В	0.25	0.025	mg/L			01/26/13 03:12	1
Orthophosphate	0.054	U	0.50	0.054	mg/L			01/26/13 03:12	1
Nitrite as N	0.0030	U	0.020	0.0030	mg/L			01/26/13 03:12	1

Client Sample ID: B2N609 Date Collected: 01/23/13 07:30							Lat	Sample ID: 160 Matrix	-1340-7 c: Water
Date Received: 01/25/13 09:29									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.1	C	1.0	0.083	mg/L			01/28/13 13:37	1
Client Sample ID: B2N610							Lat	o Sample ID: 160	-1340-8

Date Collected: 01/23/13 15:18								Matrix	c: Water
Date Received: 01/25/13 09:29 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.1	C	1.0	0.083	mg/L			01/28/13 13:37	1

General Chemistry - DL

Client Sample ID: B2N614

Date Collected: 01/23/13 15:18								Matrix	k: Water
Date Received: 01/25/13 09:29									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.9	D	4.0	0.40	mg/L			01/26/13 04:04	20
Sulfate	30.8	D	10.0	1.0	mg/L			01/26/13 04:04	20

TestAmerica Job ID: 160-1307-1

SDG: SL1352

Method: 8041A - Phenols (GC)

Lab Sample ID: MB 160-28306/1-A

Matrix: Water

Analysis Batch: 29525

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 28306

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
2,3,4,6-Tetrachlorophenol	2.2	U	5.0	2.2	ug/L		01/22/13 15:26	01/24/13 13:04	
2,4,5-Trichlorophenol	1.4	U	5.0	1.4	ug/L		01/22/13 15:26	01/24/13 13:04	
2,4,6-Trichlorophenol	1.2	U	5.0	1.2	ug/L		01/22/13 15:26	01/24/13 13:04	
2,4-Dichlorophenol	1.4	U	5.0	1.4	ug/L		01/22/13 15:26	01/24/13 13:04	
2,4-Dimethylphenol	1.3	U	5.0	1.3	ug/L		01/22/13 15:26	01/24/13 13:04	
2,4-Dinitrophenol	1.8	U	5.0	1.8	ug/L		01/22/13 15:26	01/24/13 13:04	
2,6-Dichlorophenol	1.3	U	5.0	1.3	ug/L		01/22/13 15:26	01/24/13 13:04	
2-Chlorophenol	1.6	U	5.0	1.6	ug/L		01/22/13 15:26	01/24/13 13:04	
2-Methylphenol	1.5	U	5.0	1.5	ug/L		01/22/13 15:26	01/24/13 13:04	
2-Nitrophenol	0.72	U	5.0	0.72	ug/L		01/22/13 15:26	01/24/13 13:04	
3 & 4 Methylphenol	1.6	U	5.0	1.6	ug/L		01/22/13 15:26	01/24/13 13:04	
4,6-Dinitro-2-methylphenol	1.7	U	5.0	1.7	ug/L		01/22/13 15:26	01/24/13 13:04	
4-Chloro-3-methylphenol	1.3	U	5.0	1.3	ug/L		01/22/13 15:26	01/24/13 13:04	
4-Nitrophenol	1.9	U	5.0	1.9	ug/L		01/22/13 15:26	01/24/13 13:04	
Dinoseb	1.7	U	5.0	1.7	ug/L		01/22/13 15:26	01/24/13 13:04	
Pentachlorophenol	1.5	U	5.0	1.5	ug/L		01/22/13 15:26	01/24/13 13:04	
Phenol	1.8	U	5.0	1.8	ug/L		01/22/13 15:26	01/24/13 13:04	
I and the second									

MR MR

MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 2,4,6-Tribromophenol 54 - 139 01/22/13 15:26 01/24/13 13:04 79 2-Fluorophenol 68 34 - 121 01/22/13 15:26 01/24/13 13:04

Lab Sample ID: LCS 160-28306/2-A

Matrix: Water

Analysis Batch: 29525

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28306

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
2,3,4,6-Tetrachlorophenol	100	99.7	-	ug/L		100	48 - 140	
2,4,5-Trichlorophenol	100	96.1		ug/L		96	49 - 140	
2,4,6-Trichlorophenol	100	91.3		ug/L		91	51 ₋ 140	
2,4-Dichlorophenol	100	90.7		ug/L		91	43 _ 131	
2,4-Dimethylphenol	100	91.3		ug/L		91	38 - 130	
2,4-Dinitrophenol	100	100		ug/L		100	32 _ 140	
2,6-Dichlorophenol	100	91.6		ug/L		92	45 - 136	
2-Chlorophenol	100	92.8		ug/L		93	35 _ 139	
2-Methylphenol	100	92.0		ug/L		92	42 _ 131	
2-Nitrophenol	100	97.7		ug/L		98	44 - 134	
3 & 4 Methylphenol	200	187		ug/L		93	43 - 133	
4,6-Dinitro-2-methylphenol	100	95.0		ug/L		95	52 - 140	
4-Chloro-3-methylphenol	100	95.8		ug/L		96	46 - 139	
4-Nitrophenol	100	101		ug/L		101	48 - 140	
Dinoseb	100	107		ug/L		107	49 - 140	
Pentachlorophenol	100	109		ug/L		109	47 - 140	
Phenol	100	88.9		ug/L		89	41 - 126	

	LUS	LUS	3		
Surrogate	%Recovery	Qualifier	Limits		
2,4,6-Tribromophenol	102		54 - 139		

TestAmerica Job ID: 160-1307-1

SDG: SL1352

Method: 8041A - Phenols (GC) (Continued)

Lab Sample ID: LCS 160-28306/2-A

Matrix: Water

Analysis Batch: 29525

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 28306

LCS LCS

Limits Surrogate %Recovery Qualifier 2-Fluorophenol 89 34 - 121

Lab Sample ID: 160-1307-1 MS

Matrix: Water

Analysis Batch: 29525

Client Sample ID: B2N4T0 Prep Type: Total/NA

Prep Batch: 28306

Sample Sample Spike MS MS %Rec. Result Qualifier Result Qualifier Analyte Added Unit %Rec Limits 2.1 U 94.8 89.1 ug/L 94 54 - 150 2,3,4,6-Tetrachlorophenol 1.3 U 94.8 87 53 - 149 2,4,5-Trichlorophenol 82.4 ug/L 2,4,6-Trichlorophenol 1.2 U 94.8 77.5 ug/L 82 53 - 150 1.4 U 78 2,4-Dichlorophenol 94.8 74.0 ug/L 43 - 140 2,4-Dimethylphenol 1.2 U 94.8 75.7 ug/L 80 44 - 143 ug/L 2,4-Dinitrophenol 1.7 U 94.8 86.6 91 25 - 150 2,6-Dichlorophenol 1.2 U 94.8 75.0 ug/L 79 46 - 145 2-Chlorophenol 1.6 U 94.8 75.0 79 47 - 131 ug/L 79 2-Methylphenol 1.4 U 94.8 74.8 ug/L 44 - 140 0.68 U 44 - 145 2-Nitrophenol 94.8 79.8 ug/L 3 & 4 Methylphenol 1.5 U 190 153 ug/L 81 44 - 142 1.6 U 4,6-Dinitro-2-methylphenol 94.8 83.3 ug/L 88 54 - 147 4-Chloro-3-methylphenol 1.3 U 94.8 81.9 ug/L 86 50 - 145 4-Nitrophenol 1.8 U 94.8 89.1 94 54 - 150 ug/L 96.9 Dinoseb 1.6 U 94.8 ug/L 102 56 - 150 Pentachlorophenol 1.4 U 94.8 106 ug/L 111 54 - 160

94.8

71.5

ug/L

MS MS

1.7 U

Surrogate Qualifier Limits %Recovery 2,4,6-Tribromophenol 96 54 - 139 78 34 - 121 2-Fluorophenol

Lab Sample ID: 160-1307-1 MSD

Matrix: Water

Phenol

Analysis Batch: 29525

Client Sample ID: B2N4T0 Prep Type: Total/NA

45 - 130

75

Prep Batch: 28306

Analysis Daton, 20020									1 100	Dateii.	20000
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2,3,4,6-Tetrachlorophenol	2.1	U	94.7	89.9		ug/L		95	54 - 150	1	20
2,4,5-Trichlorophenol	1.3	U	94.7	84.8		ug/L		90	53 - 149	3	20
2,4,6-Trichlorophenol	1.2	U	94.7	80.2		ug/L		85	53 - 150	3	20
2,4-Dichlorophenol	1.4	U	94.7	76.3		ug/L		81	43 - 140	3	20
2,4-Dimethylphenol	1.2	U	94.7	77.9		ug/L		82	44 - 143	3	20
2,4-Dinitrophenol	1.7	U	94.7	86.9		ug/L		92	25 - 150	0	20
2,6-Dichlorophenol	1.2	U	94.7	77.3		ug/L		82	46 - 145	3	20
2-Chlorophenol	1.6	U	94.7	77.0		ug/L		81	47 - 131	3	20
2-Methylphenol	1.4	U	94.7	76.9		ug/L		81	44 - 140	3	20
2-Nitrophenol	0.68	U	94.7	82.3		ug/L		87	44 - 145	3	20
3 & 4 Methylphenol	1.5	U	189	157		ug/L		83	44 - 142	3	20
4,6-Dinitro-2-methylphenol	1.6	U	94.7	83.1		ug/L		88	54 - 147	0	20
4-Chloro-3-methylphenol	1.3	U	94.7	84.2		ug/L		89	50 - 145	3	20
4-Nitrophenol	1.8	U	94.7	88.7		ug/L		94	54 ₋ 150	1	20

TestAmerica Job ID: 160-1307-1

SDG: SL1352

Method: 8041A - Phenols (GC) (Continued)

Lab Sample ID: 160-1307-1 MSD

Matrix: Water

Analysis Batch: 29525

Client Sample ID: B2N4T0

Prep Type: Total/NA

Prep Batch: 28306

Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1.6	U	94.7	93.7		ug/L		99	56 - 150	3	20
1.4	U	94.7	97.3		ug/L		103	54 - 160	8	20
1.7	U	94.7	73.2		ug/L		77	45 _ 130	2	20
	1.6	1.6 U	Result Qualifier Added 1.6 U 94.7 1.4 U 94.7	Result Qualifier Added Result 1.6 U 94.7 93.7 1.4 U 94.7 97.3	Result Qualifier Added Result Qualifier 1.6 U 94.7 93.7 1.4 U 94.7 97.3	Result Qualifier Added Result Qualifier Unit 1.6 U 94.7 93.7 ug/L 1.4 U 94.7 97.3 ug/L	Result Qualifier Added Result Qualifier Unit D 1.6 U 94.7 93.7 ug/L 1.4 U 94.7 97.3 ug/L	Result Qualifier Added Result Qualifier Unit D %Rec 1.6 U 94.7 93.7 ug/L 99 1.4 U 94.7 97.3 ug/L 103	Result Qualifier Added Result Qualifier Unit D %Rec Limits 1.6 U 94.7 93.7 ug/L 99 56 - 150 1.4 U 94.7 97.3 ug/L 103 54 - 160	Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD 1.6 U 94.7 93.7 ug/L 99 56 - 150 3 1.4 U 94.7 97.3 ug/L 103 54 - 160 8

MSD MSD

Surrogate	%Recovery	Qualifier	Limits		
2,4,6-Tribromophenol	96		54 - 139		
2-Fluorophenol	78		34 - 121		

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28775

Lab Sample ID: MB 160-28775/1-A

Matrix: Water

Analysis Batch: 29522

Allalysis Datcii. 23322								Fieb Date	1. 20113
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.2	U	5.0	2.2	ug/L		01/24/13 12:09	01/25/13 13:43	1
2,4,5-Trichlorophenol	1.4	U	5.0	1.4	ug/L		01/24/13 12:09	01/25/13 13:43	1
2,4,6-Trichlorophenol	1.2	U	5.0	1.2	ug/L		01/24/13 12:09	01/25/13 13:43	1
2,4-Dichlorophenol	1.4	U	5.0	1.4	ug/L		01/24/13 12:09	01/25/13 13:43	1
2,4-Dimethylphenol	1.3	U	5.0	1.3	ug/L		01/24/13 12:09	01/25/13 13:43	1
2,4-Dinitrophenol	1.8	U	5.0	1.8	ug/L		01/24/13 12:09	01/25/13 13:43	1
2,6-Dichlorophenol	1.3	U	5.0	1.3	ug/L		01/24/13 12:09	01/25/13 13:43	1
2-Chlorophenol	1.6	U	5.0	1.6	ug/L		01/24/13 12:09	01/25/13 13:43	1
2-Methylphenol	1.5	U	5.0	1.5	ug/L		01/24/13 12:09	01/25/13 13:43	1
2-Nitrophenol	0.72	U	5.0	0.72	ug/L		01/24/13 12:09	01/25/13 13:43	1
3 & 4 Methylphenol	1.6	U	5.0	1.6	ug/L		01/24/13 12:09	01/25/13 13:43	1
4,6-Dinitro-2-methylphenol	1.7	U	5.0	1.7	ug/L		01/24/13 12:09	01/25/13 13:43	1
4-Chloro-3-methylphenol	1.3	U	5.0	1.3	ug/L		01/24/13 12:09	01/25/13 13:43	1
4-Nitrophenol	1.9	U	5.0	1.9	ug/L		01/24/13 12:09	01/25/13 13:43	1
Dinoseb	1.7	U	5.0	1.7	ug/L		01/24/13 12:09	01/25/13 13:43	1
Pentachlorophenol	1.5	U	5.0	1.5	ug/L		01/24/13 12:09	01/25/13 13:43	1
Phenol	1.8	U	5.0	1.8	ug/L		01/24/13 12:09	01/25/13 13:43	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	59		54 - 139	01/24/13 12:09	01/25/13 13:43	1
2-Fluorophenol	51		34 - 121	01/24/13 12:09	01/25/13 13:43	1

Lab Sample ID: LCS 160-28775/2-A

Matrix: Water

Analysis Batch: 29522

Client Sample	ID: Lab Control Sample
	Prep Type: Total/NA

Prep Batch: 28775

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
2,3,4,6-Tetrachlorophenol	100	65.5		ug/L		66	48 - 140	
2,4,5-Trichlorophenol	100	56.5		ug/L		56	49 - 140	
2,4,6-Trichlorophenol	100	52.8		ug/L		53	51 ₋ 140	
2,4-Dichlorophenol	100	50.3		ug/L		50	43 - 131	
2,4-Dimethylphenol	100	42.1		ug/L		42	38 - 130	
2,4-Dinitrophenol	100	66.2		ug/L		66	32 - 140	
2,6-Dichlorophenol	100	50.8		ug/L		51	45 - 136	
2-Chlorophenol	100	51.6		ug/L		52	35 ₋ 139	

TestAmerica Job ID: 160-1307-1

SDG: SL1352

Method: 8041A - Phenols (GC) (Continued)

Lab Sample ID: LCS 160-28775/2-A

Matrix: Water

Analysis Batch: 29522

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 28775

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
2-Methylphenol	100	50.8		ug/L		51	42 _ 131	
2-Nitrophenol	100	53.7		ug/L		54	44 - 134	
3 & 4 Methylphenol	200	104		ug/L		52	43 _ 133	
4,6-Dinitro-2-methylphenol	100	65.4		ug/L		65	52 - 140	
4-Chloro-3-methylphenol	100	56.3		ug/L		56	46 - 139	
4-Nitrophenol	100	74.2		ug/L		74	48 - 140	
Dinoseb	100	76.8		ug/L		77	49 - 140	
Pentachlorophenol	100	76.8		ug/L		77	47 - 140	
Phenol	100	50.8		ug/L		51	41 - 126	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol	69		54 - 139
2-Fluorophenol	50		34 - 121

Lab Sample ID: 160-1317-1 MS

Matrix: Water

Analysis Batch: 29522

Client Sample ID: B2N481 **Prep Type: Total/NA**

Prep Batch: 28775

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
2,3,4,6-Tetrachlorophenol	2.1	U	95.0	80.7		ug/L		85	54 - 150
2,4,5-Trichlorophenol	1.3	U	94.9	74.9		ug/L		79	53 - 149
2,4,6-Trichlorophenol	1.2	U	95.0	71.5		ug/L		75	53 _ 150
2,4-Dichlorophenol	1.4	U	95.0	68.5		ug/L		72	43 - 140
2,4-Dimethylphenol	1.3	U	95.0	68.4		ug/L		72	44 - 143
2,4-Dinitrophenol	1.7	U	95.0	76.9		ug/L		81	25 _ 150
2,6-Dichlorophenol	1.2	U	95.0	69.3		ug/L		73	46 - 145
2-Chlorophenol	1.6	U	95.0	69.1		ug/L		73	47 - 131
2-Methylphenol	1.4	U	95.0	69.3		ug/L		73	44 - 140
2-Nitrophenol	0.68	U	95.0	73.2		ug/L		77	44 - 145
3 & 4 Methylphenol	1.5	U	190	142		ug/L		75	44 - 142
4,6-Dinitro-2-methylphenol	1.6	U	95.0	75.7		ug/L		80	54 ₋ 147
4-Chloro-3-methylphenol	1.3	U	95.0	74.7		ug/L		79	50 ₋ 145
4-Nitrophenol	1.8	U	95.0	85.7		ug/L		90	54 - 150
Dinoseb	1.6	U	95.0	90.8		ug/L		96	56 - 150
Pentachlorophenol	1.5	U	95.0	99.6		ug/L		105	54 - 160
Phenol	1.7	U	95.0	68.6		ug/L		72	45 - 130

MS MS

Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol	86		54 - 139
2-Fluorophenol	70		34 - 121

Lab Sample ID: 160-1317-1 MSD

Matrix: Water

Analysis Batch: 29522									Prep	Batch:	28775
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2,3,4,6-Tetrachlorophenol	2.1	U	95.0	73.2		ug/L		77	54 - 150	10	20
2,4,5-Trichlorophenol	1.3	U	95.0	66.4		ug/L		70	53 - 149	12	20

TestAmerica St. Louis

Client Sample ID: B2N481

Prep Type: Total/NA

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TestAmerica Job ID: 160-1307-1

SDG: SL1352

Method: 8041A - Phenols (GC) (Continued)

Lab Sample ID: 160-1317-1 MSD

Matrix: Water

Analysis Batch: 29522

Client Sample ID: B2N481 Prep Type: Total/NA

Prep Batch: 28775

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2,4,6-Trichlorophenol	1.2	U	95.0	62.7		ug/L		66	53 - 150	13	20
2,4-Dichlorophenol	1.4	U	95.0	59.3		ug/L		62	43 - 140	14	20
2,4-Dimethylphenol	1.3	U	95.0	60.4		ug/L		64	44 - 143	12	20
2,4-Dinitrophenol	1.7	U	95.0	70.5		ug/L		74	25 - 150	9	20
2,6-Dichlorophenol	1.2	U	95.0	60.1		ug/L		63	46 - 145	14	20
2-Chlorophenol	1.6	U	95.0	60.1		ug/L		63	47 - 131	14	20
2-Methylphenol	1.4	U	95.0	60.1		ug/L		63	44 - 140	14	20
2-Nitrophenol	0.68	U	95.0	63.4		ug/L		67	44 - 145	14	20
3 & 4 Methylphenol	1.5	U	190	123		ug/L		65	44 - 142	14	20
4,6-Dinitro-2-methylphenol	1.6	U	95.0	70.2		ug/L		74	54 - 147	8	20
4-Chloro-3-methylphenol	1.3	U	95.0	66.2		ug/L		70	50 - 145	12	20
4-Nitrophenol	1.8	U	95.0	78.9		ug/L		83	54 - 150	8	20
Dinoseb	1.6	U	95.0	80.6		ug/L		85	56 - 150	12	20
Pentachlorophenol	1.5	U	95.0	81.4		ug/L		86	54 - 160	20	20
Phenol	1.7	U	95.0	58.7		ug/L		62	45 _ 130	16	20

MSD MSD

%Recovery Qualifier Surrogate Limits 2,4,6-Tribromophenol 54 - 139 78 2-Fluorophenol 60 34 - 121

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 160-30916/9

Matrix: Water

Analysis Batch: 30916

Client Sample ID: Method Blank

Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.010	U	0.10	0.010	mg/L			01/31/13 14:30	1
Chloride	0.020	U	0.20	0.020	mg/L			01/31/13 14:30	1
Sulfate	0.050	U	0.50	0.050	mg/L			01/31/13 14:30	1

Lab Sample ID: LCS 160-30916/10 Client Sample ID: Lab Control Sample Prep Type: Total/NA

Matrix: Water

Analysis Batch: 30916

_	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Fluoride	1.00	0.985		mg/L		98	90 - 110
Chloride	2.00	1.92		mg/L		96	90 - 110
Sulfate	8.00	7.57		mg/L		95	90 - 110

Client Sample ID: B2N7T0 Lab Sample ID: 160-1340-1 MS **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 30916 Sample Sample Spike MS MS

%Rec. Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits Fluoride 0.31 2.00 2.33 mg/L 101 90 - 110



TestAmerica Job ID: 160-1307-1

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SDG: SL1352

Method: 300.0 - Anions, Ion Chromatography (Continued)

Comple Comple

Lab Sample ID:

Matrix: Water Analysis Batch: 30916

): 160-1340-1 MS	Client Sample ID: B2N7T0
	Prep Type: Total/NA
00040	1. 21

	Sample	Sample	Spike	IVIO	IVIO				70Kec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Chloride	7.3	\overline{D}	20.0	26.69		mg/L		97	90 - 110
Sulfate	23.7	D	40.0	61.85		mg/L		95	90 - 110

Lab Sample ID: 160-1340-1 DU Client Sample ID: B2N7T0 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 30916

	Sample	Sample	DU	DU					RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit
Fluoride	0.31		0.316		mg/L			0.7	20

Lab Sample ID: 160-1340-1 DU Client Sample ID: B2N7T0 **Prep Type: Total/NA**

Matrix: Water

Analysis Batch: 30916

RF	PD
RPD Lin	mit
1	20
0.9	20
_	

Lab Sample ID: MB 160-31887/9 Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 31887

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.010	U	0.10	0.010	mg/L			01/25/13 20:12	1
Chloride	0.020	U	0.20	0.020	mg/L			01/25/13 20:12	1
Bromide	0.025	U	0.25	0.025	mg/L			01/25/13 20:12	1
Sulfate	0.050	U	0.50	0.050	mg/L			01/25/13 20:12	1
Orthophosphate	0.054	U	0.50	0.054	mg/L			01/25/13 20:12	1
Nitrite as N	0.0030	U	0.020	0.0030	mg/L			01/25/13 20:12	1
Nitrate as N	0.0040	U	0.020	0.0040	mg/L			01/25/13 20:12	1
<u>L</u>									

Lab Sample ID: LCS 160-31887/10 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 31887

Analysis Baton, 61001								
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Fluoride	1.00	0.954		mg/L		95	90 - 110	
Chloride	2.00	1.91		mg/L		96	90 - 110	
Bromide	2.00	1.95		mg/L		98	90 - 110	
Sulfate	8.00	7.72		mg/L		96	90 - 110	
Orthophosphate	8.00	7.87		mg/L		98	90 - 110	
Nitrite as N	0.160	0.155		mg/L		97	90 - 110	
Nitrate as N	0.400	0.392		mg/L		98	90 - 110	

TestAmerica Job ID: 160-1307-1

SDG: SL1352

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 160-1340-5 MS

Matrix: Water

Analysis Batch: 31887

Client Sample ID: B2N613 Prep Type: Total/NA

-	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Fluoride	0.010	U	2.00	2.01		mg/L		100	90 - 110	
Chloride	0.020	U	2.00	1.94		mg/L		97	90 - 110	
Bromide	0.025	U	2.00	1.94		mg/L		97	90 - 110	
Sulfate	0.050	U	4.00	3.85		mg/L		96	90 - 110	
Orthophosphate	0.054	U	4.00	3.97		mg/L		99	90 - 110	
Nitrite as N	0.0030	U	0.100	0.100		mg/L		100	90 - 110	
Nitrate as N	0.0040	U	0.400	0.385		mg/L		96	90 - 110	

Lab Sample ID: 160-1340-5 DU Client Sample ID: B2N613

Matrix: Water

Analysis Batch: 31887

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis Batom 51001								
	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Fluoride	0.010	U	0.010	U	mg/L		 NC	20
Chloride	0.020	U	0.020	U	mg/L		NC	20
Bromide	0.025	U	0.025	U	mg/L		NC	20
Sulfate	0.050	U	0.050	U	mg/L		NC	20
Orthophosphate	0.054	U	0.054	U	mg/L		NC	20
Nitrite as N	0.0030	U	0.0030	U	mg/L		NC	20
Nitrate as N	0.0040	U	0.0040	U	mg/L		NC	20

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 160-29373/1 Client Sample ID: Method Blank

Matrix: Water

Analysis Batch: 29373

Prep Type: Total/NA

MB MB Result Qualifier Analyte RL MDL Unit Prepared Dil Fac D Analyzed 1.0 Sulfide 0.083 U 0.083 mg/L 01/25/13 14:59

Lab Sample ID: LCS 160-29373/2

Matrix: Water

Analysis Batch: 29373

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Sulfide	 10.1	9.80		mg/L	_	97	70 - 130	

Lab Sample ID: 160-1309-1 MS Client Sample ID: B2N5X0 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 29373

	Sample	Sample	Spike	MS	MS					%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	!	D	%Rec	Limits	
Sulfide	0.60	В	10.1	9.80		mg/L			91	70 - 130	



TestAmerica Job ID: 160-1307-1

SDG: SL1352

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric) (Continued)

Lab Sample ID: 160-1309-1 DU Client Sample ID: B2N5X0 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 29373

Sample Sample DU DU RPD Result Qualifier Result Qualifier RPD Limit Analyte Unit D Sulfide 0.60 B 0.600 B mg/L

Lab Sample ID: MB 160-29578/1 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 29578

MB MB

MDL Unit Prepared Analyte Result Qualifier RL D Analyzed Dil Fac Sulfide 0.920 B 1.0 0.083 mg/L 01/28/13 13:37

Lab Sample ID: LCS 160-29578/2 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 29578

Spike LCS LCS %Rec. Added Analyte Result Qualifier Unit D %Rec Limits Sulfide 10.1 10.12 101 mg/L

Lab Sample ID: 160-1340-7 MS Client Sample ID: B2N609 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 29578

Sample Sample Spike %Rec. MS MS Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Sulfide 1.1 C 10.1 10.72 95 mg/L 70 - 130

Lab Sample ID: 160-1340-7 DU Client Sample ID: B2N609 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 29578

DU DU Sample Sample RPD Analyte Result Qualifier Result Qualifier Unit D RPD Limit 1.1 C Sulfide 1.12 mg/L 20

TestAmerica Job ID: 160-1307-1

SDG: SL1352

GC Semi VOA

Prep Batch: 28306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-1307-1	B2N4T0	Total/NA	Water	3520C	
160-1307-1 MS	B2N4T0	Total/NA	Water	3520C	
160-1307-1 MSD	B2N4T0	Total/NA	Water	3520C	
160-1307-2	B2N489	Total/NA	Water	3520C	
160-1307-3	B2N490	Total/NA	Water	3520C	
LCS 160-28306/2-A	Lab Control Sample	Total/NA	Water	3520C	
MB 160-28306/1-A	Method Blank	Total/NA	Water	3520C	

Prep Batch: 28775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-1317-1	B2N481	Total/NA	Water	3520C	
160-1317-1 MS	B2N481	Total/NA	Water	3520C	
160-1317-1 MSD	B2N481	Total/NA	Water	3520C	
160-1317-2	B2N496	Total/NA	Water	3520C	
160-1317-3	B2N4B7	Total/NA	Water	3520C	
160-1317-4	B2N477	Total/NA	Water	3520C	
160-1317-5	B2N485	Total/NA	Water	3520C	
LCS 160-28775/2-A	Lab Control Sample	Total/NA	Water	3520C	
MB 160-28775/1-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 29522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-1317-1	B2N481	Total/NA	Water	8041A	28775
160-1317-1 MS	B2N481	Total/NA	Water	8041A	28775
160-1317-1 MSD	B2N481	Total/NA	Water	8041A	28775
160-1317-2	B2N496	Total/NA	Water	8041A	28775
160-1317-3	B2N4B7	Total/NA	Water	8041A	28775
160-1317-4	B2N477	Total/NA	Water	8041A	28775
160-1317-5	B2N485	Total/NA	Water	8041A	28775
LCS 160-28775/2-A	Lab Control Sample	Total/NA	Water	8041A	28775
MB 160-28775/1-A	Method Blank	Total/NA	Water	8041A	28775

Analysis Batch: 29525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-1307-1	B2N4T0	Total/NA	Water	8041A	28306
160-1307-1 MS	B2N4T0	Total/NA	Water	8041A	28306
160-1307-1 MSD	B2N4T0	Total/NA	Water	8041A	28306
160-1307-2	B2N489	Total/NA	Water	8041A	28306
160-1307-3	B2N490	Total/NA	Water	8041A	28306
LCS 160-28306/2-A	Lab Control Sample	Total/NA	Water	8041A	28306
MB 160-28306/1-A	Method Blank	Total/NA	Water	8041A	28306

General Chemistry

Analysis Batch: 29373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-1309-1	B2N5X0	Total/NA	Water	9034	
160-1309-1 DU	B2N5X0	Total/NA	Water	9034	
160-1309-1 MS	B2N5X0	Total/NA	Water	9034	
160-1309-2	B2N5W9	Total/NA	Water	9034	

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TestAmerica Job ID: 160-1307-1

SDG: SL1352

General Chemistry (Continued)

Analysis Batch: 29373 (Continued)

	Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
	LCS 160-29373/2	Lab Control Sample	Total/NA	Water	9034	
ı	MB 160-29373/1	Method Blank	Total/NA	Water	9034	

Analysis Batch: 29578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-1340-7	B2N609	Total/NA	Water	9034	
160-1340-7 DU	B2N609	Total/NA	Water	9034	
160-1340-7 MS	B2N609	Total/NA	Water	9034	
160-1340-8	B2N610	Total/NA	Water	9034	
LCS 160-29578/2	Lab Control Sample	Total/NA	Water	9034	
MB 160-29578/1	Method Blank	Total/NA	Water	9034	

Analysis Batch: 30916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-1340-1	B2N7T0	Total/NA	Water	300.0	
160-1340-1	B2N7T0	Total/NA	Water	300.0	
160-1340-1 DU	B2N7T0	Total/NA	Water	300.0	
160-1340-1 DU	B2N7T0	Total/NA	Water	300.0	
160-1340-1 MS	B2N7T0	Total/NA	Water	300.0	
160-1340-1 MS	B2N7T0	Total/NA	Water	300.0	
160-1340-2	B2N781	Total/NA	Water	300.0	
160-1340-2	B2N781	Total/NA	Water	300.0	
160-1340-3	B2N7M8	Total/NA	Water	300.0	
160-1340-3	B2N7M8	Total/NA	Water	300.0	
160-1340-4	B2MP93	Total/NA	Water	300.0	
160-1340-4	B2MP93	Total/NA	Water	300.0	
LCS 160-30916/10	Lab Control Sample	Total/NA	Water	300.0	
MB 160-30916/9	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 31887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-1340-5	B2N613	Total/NA	Water	300.0	 -
160-1340-5 DU	B2N613	Total/NA	Water	300.0	
160-1340-5 MS	B2N613	Total/NA	Water	300.0	
160-1340-6	B2N614	Total/NA	Water	300.0	
160-1340-6 - DL	B2N614	Total/NA	Water	300.0	
LCS 160-31887/10	Lab Control Sample	Total/NA	Water	300.0	
MB 160-31887/9	Method Blank	Total/NA	Water	300.0	



TestAmerica Job ID: 160-1307-1

SDG: SL1352

Method: 8041A - Phenols (GC)

Matrix: Water Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		ТВР	2FP	
Lab Sample ID	Client Sample ID	(54-139)	(34-121)	
160-1307-1	B2N4T0	86	73	
160-1307-1 MS	B2N4T0	96	78	
160-1307-1 MSD	B2N4T0	96	78	
160-1307-2	B2N489	69	62	
160-1307-3	B2N490	86	71	
160-1317-1	B2N481	70	62	
160-1317-1 MS	B2N481	86	70	
160-1317-1 MSD	B2N481	78	60	
160-1317-2	B2N496	72	62	
160-1317-3	B2N4B7	65	56	
160-1317-4	B2N477	61	52	
160-1317-5	B2N485	61	53	
LCS 160-28306/2-A	Lab Control Sample	102	89	
LCS 160-28775/2-A	Lab Control Sample	69	50	
MB 160-28306/1-A	Method Blank	79	68	
MB 160-28775/1-A	Method Blank	59	51	

Surrogate Legend

TBP = 2,4,6-Tribromophenol

2FP = 2-Fluorophenol

TestAmerica St. Louis

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